QL
684
K2H314
c.2
Birds

A-4

QL
684
K2H314
c.2
Birds

To Dr. Charles W. Richmond
Compliments of
Harry Harris

Transactions of The Academy of Science of St. Louis.

VOL. XXIII. No. 8.

BIRDS OF THE KANSAS CITY REGION.

HARRY HARRIS.

Issued February 27, 1919.

Smithsonian Institution
RICHMOND
COLLECTION
270465

INTRODUCTION.

The following list of birds contains those species which have been noted in the vicinity of Kansas City, Missouri. Most of the birds listed have been seen in Jackson County, Missouri, but the ground covered by the list includes Clay and Platte Counties, Missouri, and Johnson County, Kansas. The extreme limits of the region covered by the notes used in the preparation of the list are Warrensburg, Missouri, Johnson County, forty-seven miles (as the Crow flies) from Kansas City, Corning, Missouri, Holt County, ninety-four miles from Kansas City, and Douglas County, Kansas, twenty-eight miles from Kansas City.

Kansas City itself is on the Missouri River, at its junction with the Kansas, or Kaw River, in Lat. 39, Long. 94 30'. The Missouri River makes a sharp turn to the east here. It is bordered on the south by bluffs of loess and cliffs of limestone which rise to a height of more than 250 feet above the river. On the north, in Clay County, there is a broad flood plain, bordered at some distance from the river by cliffs. These alternations of bluff, cliff, sand bar and flood plain are characteristic of the Missouri River throughout its course in the region above defined. Where small streams find their way to the river, a "draw" winds for a short distance back of the bluffs. The bluffs and the "draws" are richly clothed with pawpaw and red bud, wild grape and black maple, the haunts of the Cardinal and the Carolina Wren.

Where small rivers, such as the Big and Little Blue, have cut a valley to the Missouri from the higher prairies, they duplicate in miniature the features characteristic of the great river; narrow bottom lands fringe one side, and cliffs the other, alternating as the streams wind. The rich soil along the rivers is shaded by great elms, tall hackberries and "Cochi" beans (Kentucky Coffee trees); the base of the cliffs are covered with bladder-nut and cornel. Here the Kentucky Warbler, the Tufted Tit and the Red-bellied Woodpecker are characteristic birds.

Above the cliffs there are thin-soiled shelves of limestone,

covered in summer and fall with a profusion of bright flowers, nigger-heads, asters, goldenrod and blazing star. If these so-called barrens are extensive, they are covered with thickets of plum, wild crab and buckthorn, the favorite home of Bell's Vireo. Where the soil becomes deeper and the prairie begins, man has for the most part taken possession, and turned the stiff prairie grass under, and is now raising wheat, clover, alfalfa and grass. The Prairie Horned Lark, the Mourning Dove, and the Dickcissel are the birds of the wheat fields. On the farmsteads themselves and in the windbreaks of soft maple that surround them, breed the birds which the farmer boy knows best. the Wren, the Kingbird, the Purple Martin, the Bluebird, and the rest of the well known list. In the osage orange hedges that divide the upland fields, Shrikes nest and many migrant birds find shelter.

The river, as it sweeps past on its way to the Gulf, has offered for untold centuries a highway for the many species that breed in northern latitudes. The House Wrens and Orchard Orioles of Nebraska rest in early May in the willows along its bars, the Purple Finches and Siskins on their way south in the fall, feed on the "buttons" of the sycamores. But to the real river-man, who has watched for many years the floods make and remake the ever-shifting shores, the flight of birds suggests the great waves of ducks and geese that rest on the sandbars, or in the swift current itself, or the "Snipe," the Sandpipers or Plover that feed on the exposed flats or wheel with shrill pipings over the muddy water. With these birds are associated all the other waterfowl less important to the sportsman, but often coming within his ken, the majestic Pelican, the Grebe, the Coot and the Herons.

The city itself has destroyed many former breeding places of the birds, but in the residence section the planting of trees and shrubs has attracted those species that adapt themselves to the neighborhood of man. The Brown Thrashers and Catbirds nest in the shrubbery, Orioles and Robins in the elms, Bluebirds, Wrens and Martins in the boxes now so generally put up. The Chimney Swift is still seen over the mass of stone and concrete that covers the downtown section of the city.

During migration many of the smaller birds pass through the tree tops in the residence sections of the city, or hide by day in

the shrubbery of the yards. In any open space, such as Penn Valley Park, Mount Washington or Forest Hill Cemetery, a large number of migrants may be found. Swope Park is so extensive and so varied in character that almost every bird belonging to the Kansas City region may be found there either breeding, wintering or passing through. A census of the birds in Swope Park, made by Mr. A. E. Shirling, includes 150 species, of which 73 species, represented by 2,025 singing males, bred within the borders of the Park.

The region about Kansas City probably compares favorably with any section of the country in the number of birds that are found at different seasons of the year. In only one respect is the region unfavorable for certain groups of birds; it lacks extensive marshes or reedy lakes where Rails, Marsh Wrens and Bitterns could find the shelter in which they breed. There are a few places, chiefly near the Missouri River, where such birds have been found. In Platte County the shallow river-lakes, such as Bean Lake, and Sugar and Mud Lakes at Armour, are covered in part with a growth of cat-tails. Here Gallinules, Least Bitterns, Black Terns and Yellow-headed Blackbirds are fairly common.

The increase of ducks and geese, since the passage of the Federal Migratory Bird Law, has been noticeable. More ducks have passed through, and, in many localities, several species are remaining to breed, which formerly were driven off by spring shooting.

The larger birds, those which were hunted, and the birds of prey which depend on the game birds for food and were themselves a mark for gunners, have diminished to a deplorable extent. All the earlier naturalists noted the abundance of waterfowl along the Missouri, and of game birds on its banks. Canada Geese nested in the Missouri bottoms in the days of Audubon, Wild Turkey and Prairie Chicken were everywhere common. Eagles and Fish Hawks built bulky nests in the tall trees in the bottom lands; Duck Hawks and Ravens had their homes in the cliffs.

Several species once plentiful or even abundant are now extinct, either in the whole country, or in the region covered by this list. The Passenger Pigeon and the Paroquet have van-

ished everywhere; the Ivory-billed Woodpecker and the Ruffed Grouse are gone from Western Missouri.

On the other hand, some birds have probably increased with the cutting off of the timber and the cultivation of the fields. There are probably more Dickcissels and Prairie Horned Larks, more Shrikes and Bluebirds now than fifty years ago. Their enemies have decreased and the land suitable for breeding has grown more extensive.

Very little has been previously published about the birds of Western Missouri. The following references form as complete a bibliography as the author has been able to compile:

On June 25, 1804, the Lewis and Clark Expedition encamped for the night on an island in the Missouri River near the mouth of a large creek called the Blue-water (now known as Big Blue River) and on the next evening had reached a point at the confluence of the Kansas (Kaw) where they remained for two days. Here they secured game in plenty, including Deer and Wild Turkey. On their return they passed this point on September 15, 1806, and killed an Elk and saw many Wild Turkeys.

Thomas Say, of the Long Expedition, made an excursion across Jackson County from Fort Osage (Sibley) to the Konza River (Kaw), leaving the fort on August 6, 1819, and rejoining the main party on the Missouri, near the mouth of the Platte, about September 1. He mentions the abundance of game and states that here Ravens were first seen by the party. He adds that in this region he saw a pretty species of Sparrow that was altogether new to him. Reference is here made to the Lark Sparrow which the party had discovered a short time before further down the Missouri River at Bellefontaine.

In the spring of 1834, Thomas Nuttall in company with Jno. K. Townsend passed through Jackson County on the old Independence-Westport Road on his way to the Pacific Coast. Mention of this stage of the journey is made in the second edition of his "Manual," published in 1840, where the Mourning Finch (now known as Harris's Sparrow) is described and the type locality given as "a few miles west of Independence."

Maximilian, Prince of Wied, had ascended the Missouri River in 1833, and on his return the next spring, just 17 days after Nuttall and Townsend had left Independence, he dis-

covered, near the mouth of Platte River, a finch new to him which he named Fringilla comata. He minutely described this bird (the Mourning Finch of Nuttall) in the second volume of his journal published in 1841.

Audubon, who reached this point on May 2, 1843, on his journey up the Missouri River to Fort Union, speaks in his journal of the abundance of Wild Turkeys and Paroquets, and gives a list of 49 species of birds observed or collected. This list contains such locally extinct or rare birds as Ruffed Grouse, Duck Hawk, Swan, Bald Eagle (two nests). In the bottom land on the Missouri side, near Leavenworth, his party took specimens of the sparrow which he named after his friend Edward Harris, not knowing of the discovery of this bird in 1834 by Nuttall. At this point was discovered a vireo, new to science, which Audubon named after another member of the party—J. G. Bell.

On the return, in 1843, four Paroquets and two Ruffed Grouse were killed in the vicinity of St. Joseph, and near Leavenworth great flocks of migrating Geese and Pelicans were seen on October 10th. Three days later a great number of Sandhill Cranes were seen.

Edward Harris, who accompanied Audubon, and for whom the supposedly new finch was named, published a list of 118 species seen between Fort Leavenworth and Fort Union (5th Annual Report Smithsonian Institution, for 1850).

Of the birds noted by Dr. P. R. Hoy in this vicinity in 1854, at least one species, the Purple Sandpiper, has not since been observed (19th Annual Report Smithsonian Institution, 1864).

Dr. J. A. Allen collected a series of specimens in May, 1871, in the bottoms of Platte County, and took several species of water-birds about a lagoon, probably Horseshoe Lake. (Bull. Museum Comparative Zool., 1872).

W. E. D. Scott, who was employed at the Normal School of Warrensburg, Johnson County, during the spring of 1874, published a list of 147 species observed and collected in that vicinity (Nuttall Bulletin, Vol. 4, 1879).

A few scattered field notes and short articles on rare and unexpected species, by local observers, have from time to time appeared in the bird journals. No previous attempt has been

made to give a complete local list, excepting of course the admirable state list of Mr. Otto Widmann. This list was published in 1907 by the St. Louis Academy of Science as Vol. XVII, No. 1, of their Transactions. The list is a monument to the accurate and full information which Mr. Widmann gathered together from his own widespread observation and from his correspondents throughout the state.

Ralph Hoffmann

BIRDS OF THE KANSAS CITY REGION.

HARRY HARRIS.

PREFACE.

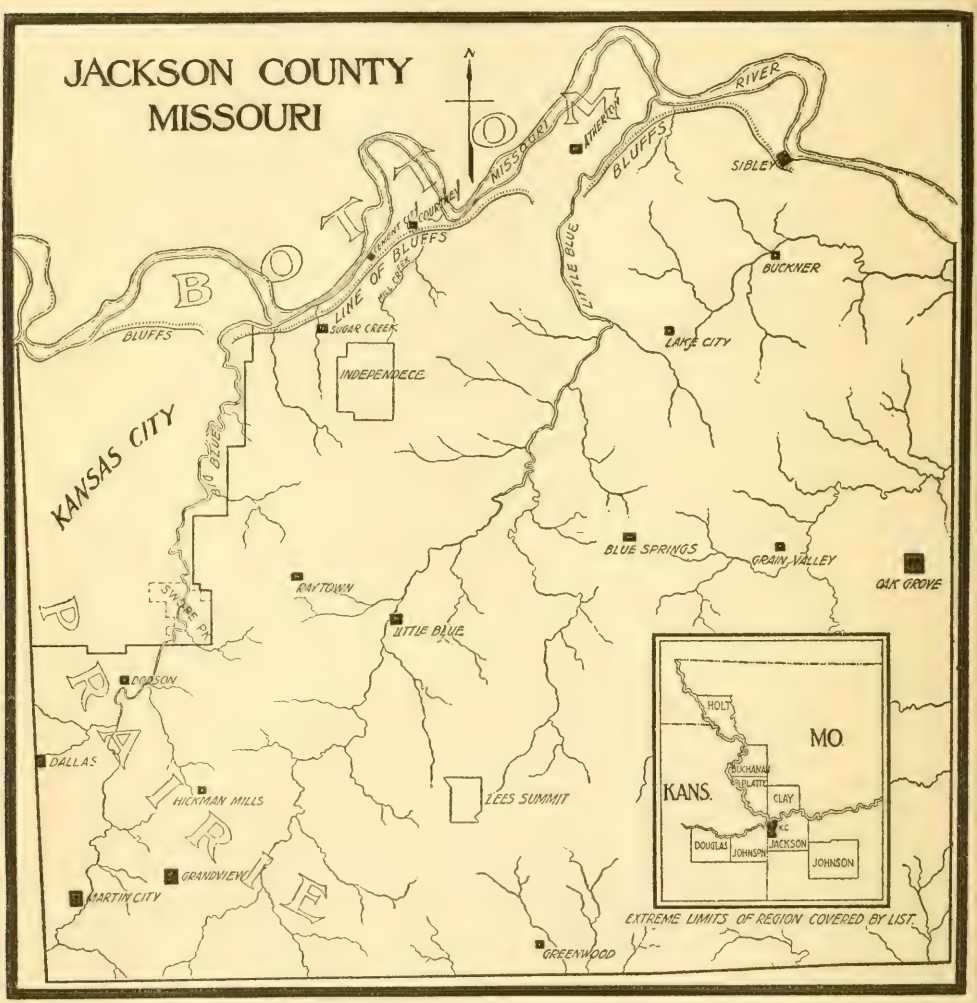
There has been no list of the birds of the Kansas City region which local students of birds could consult. It is hoped that the present summary of an extensive study of the avifauna of Jackson County, Missouri, and vicinity, will be of service to local nature-study classes, and to bird students in general. It is hoped also that it may stimulate that scientific interest in bird-study which is an active and powerful incentive to the growing movement for bird protection.

No attempt has been made to furnish a means of identifying birds, since so many standard works covering this ground are available. A list of desirable books is given in the text. The nomenclature used is that of the American Ornithologists' Union Check List.

The total number of species and subspecies listed is 343. This number includes 8 species that have become extinct in this region, and 17 that occur here only as wanderers out of their ranges. The summer residents—that is breeders—number 117, of which 12 are very rare. The 9 species and subspecies indicated in the text by brackets, have not yet been authenticated, but they should occur here and are included to call the attention of local students to the possibility of establishing their presence in this vicinity.

Credit is due several local ornithologists for the generous loan of notes and material which have greatly aided in the working out of migration periods and in authenticating the occurrence of a few rare species. These courtesies are here acknowledged with thanks. The greatest stimulus to the work has been the field-companionship of Mr. Ralph Hoffmann. The vast fund of ornithological and book lore possessed by this enthusiastic and kindly naturalist has been a constant inspiration. Mr. Dix Teachenor, an experienced taxonomist, has as-

sisted in determining subspecies, and has furnished for study a large series of sparrow skins collected in this region. Mr. B. F. Bush of Courtney, and Mr. Charles Tindall of Independence, have furnished valuable notes. Mr. Tindall has also loaned his



collection of skins. The notes of Mr. John A. Bryant have yielded several records as well as some early-day matter relative to species now extirpated or very rare. Mr. Charles E. Dankers of Corning, Holt County, who has made an extensive

collection of the larger birds of Northwestern Missouri, has given free access to his notes and specimens. Mr. A. F. Smithson of Warrensburg has contributed voluminous notes covering a period of several years. Mr. A. E. Shirling has assisted materially in bringing the list down to date. Among the sportsmen whose observations have been based on a knowledge of ornithology, Judge J. E. Guinotte of Kansas City, and Mr. R. P. Holland of Atchison, Kansas, have contributed matter of interest and value. The Kansas list of Mr. C. D. Bunker, Curator of the Kansas University Museum, and the admirable Missouri list of Mr. Otto Widmann have been freely consulted and a few records used.

Order PYGOPODES. Diving Birds.

Suborder **Colymbi.** Grebes.

Family Colymbidae. Grebes.

Aechmophorus occidentalis (Lawrence). Western Grebe.
Accidental, possibly casual, visitant.

The Western Grebe has been taken once near Lawrence (Bunker), and there is a Missouri River record from adjacent territory on the north (southeastern Nebraska). While no specimen has been taken in this immediate vicinity, this grebe very possibly occurs on the Missouri River here as a casual visitant during migration.

Colymbus holboelli (Reinhardt). Holboell's Grebe.
Occasional visitant.

This rare bird has been taken but twice in this vicinity; once in 1854 and again on September 15, 1905. Two grebes observed on April 28, 1917, in the Missouri River overflow at the mouth of the Big Blue, were identified as this species. It is to be looked for during the migration seasons on any large pond or stream, but is more likely to occur on the Missouri River.

Colymbus nigricollis californicus (Heermann). Eared Grebe.
Regular but rare migrant.

The Eared Grebe occurs from the middle of April to the first week in May, and again during the second week in November.

The small number of actual records for this bird in Jackson county may be accounted for by lack of enough suitable reedy lakes. Two specimens have been taken on the Missouri River near Courtney, and the bird has been observed at Lake City. It occurs regularly and in numbers, during migration, about the river lakes in Platte County.

Podilymbus podiceps (Linn.). Pied-billed Grebe.
Common migrant and rare summer resident.

The Pied-billed Grebe arrives from the last week in March to the middle of April, and leaves in late November.

This small grebe may be looked for on any small pond or stream. It has been frequently noted on all of the park lakes.

It is easy of approach and, on being disturbed, instead of taking wing will usually dive, hence the vernacular name Hell Diver.

The nest has never been found in Jackson County, but pairs of birds have remained all summer on Mill Creek, north of Independence (Bush), on Fish Lake, and on the lower Blue River. A nearly full grown young bird was seen at the mouth of Blue on June 13, 1916.

Suborder **Cepphi.** Loons and Auks.

Family Gaviidae. Loons.

Gavia immer (Brunnich). Loon.
Rare migrant.

The few available records of this once common migrant indicate that it arrives from the north about the middle of October and returns during the first two weeks in April.

It is observed mainly on the Missouri River, though a specimen was taken at Lake City on October 10, 1902. It is still occasionally taken by duck hunters and a few individuals have been known to winter here during mild and open winters.

Order LONGIPENNES. Long-winged Swimmers.

Family Stercorariidae. Skuas and Jaegers.

Stercorarius pomarinus (Temminck). Pomarine Jaeger.
Accidental visitant.

A fine specimen of this unlooked-for ocean bird was secured by two duck hunters on the Missouri River near the Eaton Bar on November 28, 1915. The skin is now in the possession of Charles Tindall of Independence, and constitutes the only record for the state.

That there might be no question as to the identification, the specimen was forwarded to the Biological Survey at Washington and identified by Dr. H. C. Oberholser.

Stercorarius parasiticus (Linn). Parasitic Jaeger.
Rare winter visitant.

The Parasitic Jaeger has been taken several times by duck hunters on the Missouri River, though there are no specimens to substantiate the records. A flock of five were observed at close range near the mouth of the Big Blue River on April 23,

1916. There can be no question of the identification in this case, as the birds were close enough to show their distinctive characteristic, the *sharp* middle tail feathers a few inches longer than the others.

The older river men state that this bird was not uncommon in the days when the river was filled with refuse from the packing houses.

STERCORARIUS LONGICAUDUS Vieillot. Long-tailed Jaeger.
Accidental visitant.

A specimen of this bird was taken at Bean Lake in the spring of 1910 (Holland). On October 3, 1916, Mr. B. F. Bush watched two of these easily identified Jaegers worrying a bunch of Blue-winged Teal on the Missouri River near Courtney. Mr. Bush is a trained scientific observer and there can be no question as to this record, especially as the birds were within a few feet of him part of the time. These are the only known records for Missouri.

Family LARIDAE. Gulls and Terns.

Subfamily Larinae. Gulls.

RISSA TRIDACTYLA TRIDACTYLA (Linn.). Kittiwake.
Accidental.

The only record for this gull is that of Mr. J. A. Bryant, who took a specimen in the spring of 1897 (Widmann, p. 24). It has been impossible to verify this record, as the specimen does not seem to have been preserved.

LARUS ARGENTATUS Pontoppidan. Herring Gull.
Fairly common migrant.

The Herring Gull sometimes arrives in February, even when the river is filled with floating ice, as in 1916, but more often from the last week in March to the first week in April. This gull probably follows the Mississippi River south in the fall migration, as there are no records of its occurrence here at that season.

LARUS DELAWARENSIS Ord. Ring-billed Gull.
Not uncommon migrant.

Though there are but five authentic records of the occurrence

of this gull in this vicinity—Oct. 27, 1899, May 5, 1902 (specimen), Sept. 25, 1902, Apr. 18, 1915 and Apr. 12, 1917,—it probably occurs oftener than indicated by these figures. Unfortunately the observers most liable to see it (the river fishermen) are unable to distinguish it from the preceding species. Further observation may prove it to be as common, if not commoner, than the Herring Gull.

LARUS ATRICILLA Linnaeus. Laughing Gull.

Casual migrant.

The Laughing Gull has been repeatedly taken at Lawrence (six records, Bunker) and has been reported from points to the north and east (southeastern Nebraska and southern and central Iowa). It is probably a rare bird everywhere inland and has thus far escaped notice on the Missouri River in this immediate neighborhood.

LARUS FRANKLINI Richardson. Franklin's Gull.

Common migrant.

Long straggling flocks of these beautiful gulls begin to arrive from the south from the 10th to 20th of April and are but a few days in passing, as they are probably impatient to reach the breeding grounds. Late arrivals have been noted as late as the first week in May. They seem to be irregular in the autumnal flight; during some years but a few are seen, during others great numbers pass through. They straggle along in a leisurely manner, feeding as they go, from the middle of October to the last of November.

In the spring they are to be looked for on the Missouri River but in fall are likely to occur about any body of water.

LARUS PHILADELPHIA (Ord). Bonaparte's Gull.

Not very rare migrant.

Specimens of Bonaparte's Gull are occasionally shot by hunters on the Missouri River; more often in spring than autumn. Available records of specimens are as follows: Sugar Lake, May 5, 1897, Bryant; Missouri River, Jackson County, May 10, 1900, Tindall; Holt County, May 5, 1908, Dankers; Missouri River, Jackson County, December 8, 1917, specimen in collection of Miss Clements of Independence.

Subfamily STERNINAE. Terns.

STERNA CASPIA Pallas.

HYDROPROGNE CASPIA IMPERATOR (Coues). Proposed April, 1917. Caspian Tern.

Occasional visitant.

Two specimens of this tern were taken by Chas. Tindall on the Missouri River near Courtney on October 14, 1914. Several more were secured, probably from the same flock, at the same place ten days later.

A specimen was taken at Lake City by Mr. J. A. Bryant in the spring of 1886. No other records are available.

STERNA FORSTERI Nuttall. Forster's Tern.

Not uncommon migrant.

Small flocks of Forster's Terns appear late in April and early May, and again in September and October. Recent data seem to point to the increase of this tern which, though formerly common, had later become very scarce.

These graceful birds may be looked for on the Swope Park lakes or any other large pond, as well as on the Missouri River.

STERNA HIRUNDO Linn. Common Tern.

Somewhat rare migrant.

The Common Tern is usually seen late in May or early June and again in October. It was formerly rather common. Some recent dates are May 10, 1916, when a flock of twelve were seen in Swope Park, and June 11, 1916, when fifteen were observed feeding in their characteristic manner about the mouth of Big Blue River.

STERNA ANTILLARUM (Lesson).

STERNULA ANTILLARUM ANTILLARUM Lesson. Proposed April, 1917. Least Tern.

Somewhat rare migrant and occasional summer resident.

Least Terns make their appearance in small numbers during the last few days in April in some years, but oftener in the first week of May. They leave for the South during the first fifteen days of September.

Prior to 1900 this dainty bird was commonly met with on the Missouri River and about neighboring ponds and marshes. It

remained to breed in small numbers in favorable localities in the Missouri bottoms. During the summer of 1915 a pair were seen throughout the entire breeding season at the mouth of Big Blue, where they no doubt had a nest.

This tern seems to be slightly on the increase; more individuals have been seen during the last four years than for thirteen years prior to that time.

HYDROCHELIDON NIGRA SURINAMENSIS (Gmelin). Black Tern.
Abundant migrant and not uncommon summer resident.

The first impatient males begin to arrive about April 26th, followed in increasing numbers all through May by the bulk of the flight and until mid-June by the stragglers. A flock of between fifty and a hundred birds have been seen migrating as late as June 11th.

These terns follow the Missouri River in flocks of several hundred individuals and resort to favorite feeding and resting places where they may be observed during every migration. The Big Eddy just below the mouth of Blue is one of these. Here the feeding flocks may be easily approached in a launch and the many plumage variations observed at close range.

This species has been seen about the Swope Park lakes, Penn Valley lake, Country Club pond and other small bodies of water in and around the city. They are observed during the entire summer at most of the duck-hunting resorts in this vicinity, and are very possibly breeding in favorable localities.

Several were seen hawking for insects over an athletic field in the Country Club region in company with Nighthawks on May 17, 1917.

Order STEGANOPODES. Totipalmate Swimmers.

Family ANHINGIDAE. Darters.

ANHINGA ANHINGA (Linn).Water-Turkey.
Formerly an occasional summer visitant.

A small flock of these curious Southern birds were observed by Bush on the Missouri River near old Wayne City (now Cement City), in 1882.

A specimen was taken by Bryant on the Missouri River at Parkville in 1898. This bird will possibly not be met with here again; it has been steadily driven south by the encroachments

of civilization until but a few pairs remain in the sunken regions of southeast Missouri.

Family Phalacrocoracidae. Cormorants.

Phalacrocorax auritus auritus (Lesson). Double-crested Cormorant.

Rather rare migrant.

All available records but one of the occurrence of this bird here are in October and November, though it is known to pass regularly in the spring (two specimens, April 17, 1904, Dankers).

During occasional migrations it is seen in considerable numbers, as in 1904, when, on October 24th, a flock of between 100 and 150 were seen perched in the trees along the river bank across from the Big Eddy. Two specimens were taken from this flock. Again in the same year on November 17th a flock of twenty was observed on the river near Courtney.

The river fishermen know this bird as the Water-Turkey and state that rarely a season passes without their seeing it.

Family Pelecanidae. Pelicans.

Pelecanus erythrorhynchos Gmelin. White Pelican.

Common migrant.

This locality is fortunate in being favored with spring and autumn visits from this, the largest member of the North American Avifauna.

Pelicans arrive from the south during the last week of March or very early in April and return from the 13th to 25th of September, straggling along in varying numbers until late in November.

They are still seen in considerable numbers, though not in such abundance as formerly. They seem to be holding their own of late years in spite of the odds against them.

Flocks of several hundreds of these majestic birds are often seen flying high over the Missouri Valley, when they present a sight not easily forgotten, as with alternate series of flapping and sailing they make their way rapidly along. Unless at too high an altitude they are not to be mistaken for any other water bird.

They have on at least one occasion been seen to make their

well-known concerted drive for fish into shallow water. This was observed at Goose Island in the Missouri River a short distance above the city.

Hunters only too often bring in specimens of Pelicans wantonly destroyed for "sport." Among these have been noted males, taken in the autumn, with the nuptial horn or mandible keel still retained. This temporary appendage is usually cast on the breeding ground before the southward flight begins.

Favorable localities, where they may rest and feed in seclusion, or where they are protected, have been known to harbor great numbers of these migrants for days and even weeks at a time. One lake in this district is visited twice a year by a flock of from 100 to 1,500 Pelicans. They sometimes remain on this pond for two weeks.

Order ANSERES. Lamellirostral Swimmers.

Family ANATIDAE. Ducks, Geese and Swans.

Subfamily Merginae. Mergansers.

MERGUS AMERICANUS Cassin. Merganser.
Not uncommon migrant; occasional winter resident.

Mergansers arrive late from the north, usually during the last half of November, and leave early, in some seasons as early as February, but more often in March and early April.

During the winter of 1910-1911 a flock of six were observed during the entire winter at the mouth of the Big Blue. Again in 1916 another larger flock wintered on a nearby pond, leaving early in March.

MERGUS SERRATOR Linn. Red-breasted Merganser.
Rare migrant.

This duck is occasionally seen in hunters' bags and is probably more often taken than the records indicate. Two beautiful specimens were examined in a gunner's string on March 18, 1916, on the Missouri River near Sugar Creek. There are a half dozen authentic records for the last few years.

LOPHODYTES CUCULLATUS (Linn.). Hooded Merganser.
Common migrant and formerly a not uncommon summer resident.

This striking duck is regularly taken by hunters on the river and at the many shooting resorts in this vicinity.

It remains during open winters in favorable localities and has been known to breed in the county. The dates of its occurrence here cover the entire year, though lately it is seen only during migration.

A flock of six nearly full-grown young were seen on Mill Creek, between Independence and Courtney, on June 17, 1892.

Subfamily Anatinae. River Ducks.

ANAS PLATYRHYNCHOS Linn. Mallard.

Abundant migrant, fairly common winter resident and occasional summer resident.

The Mallard is present in some numbers during every winter that the Missouri River remains open. The first birds from the north begin to arrive early in September, though the great flocks do not come through until the middle of October, when they are here in varying numbers until the last days of November and the first half of December. Unless the winter be exceptionally severe, the northward movement begins late in January and early February. By the last week in March the crest of the migratory wave has passed, though stragglers may be seen as late as the middle of May.

In former times the Mallard nested commonly along the Missouri River bottoms from its mouth, and Widmann states that a few still find safe breeding grounds in the large tracts of spartina grass in the marshes of north Missouri. Smithson found Mallards breeding near Warrensburg in 1903 and 1904. They have been known to breed also during recent years near Bigelow.

During the past two or three years there has been a very noticeable increase in the numbers of these and other ducks. The autumn flight of 1916 was decidedly larger than any seen for many years.

On January 29, 1917, there was a surprising southward flight of thousands of Mallards and Pintails. A severe blizzard followed the ducks, accompanied by a temperature of twelve degrees below zero. These birds had spent the winter up to this date in northern Missouri, although there had been periods during which all lakes and streams, except the Missouri River, had been frozen solid. The closing of the river during this blizzard probably accounts for this movement.

Malards are likely to drop into any small body of water during their migratory flights and are sure to be seen in Swope Park.

ANAS RUBRIPES RUBRIPES Brewster. Red-legged Black Duck.
Not uncommon but irregular migrant.

The well-known controversy relative to the validity of this form is an interesting incident in the history of systematic ornithology. It is included in this list in the firm belief that it is a perfectly good and valid subspecies and that it will one day be returned to the American Ornithologists' Check List.

Black Ducks with intensely red legs and feet are not uncommonly taken on the Missouri River and at the several duck-shooting resorts in this neighborhood. In some years only an occasional specimen is seen. A hunter's string was examined on October 27, 1917, that contained two specimens of this duck taken in Jackson County.

William Andrews, who lives on the Missouri River and who has spent a great many years hunting and fishing there, recognizes the two forms of the Black Duck, and states that he has killed hundreds of the Red-legged subspecies in his time. He states further that they are much less common than formerly and are somewhat irregular in their occurrence.

ANAS RUBRIPES TRISTIS Brewster. Black Duck.
Rare migrant.

This duck was formerly a common migrant and often present in winter. The older sportsmen recall the days when the "Black Mallard" was taken regularly.

It has been noted but a few times during the past 15 years and is now considered a rarity. Two specimens were taken on the Missouri River, Oct. 30, 1903, and Nov. 15, 1909, respectively.

CHAULELASMUS STREPERUS (Linn.). Gadwall.
Fairly common migrant.

The Gadwall is regularly met with on the Missouri River during March and April and in late October and November. A few single birds or small flocks are occasionally seen as early as the middle of February. A flock of over two hundred birds was seen on April 13, 1917, indicating that this species may be on the increase.

The Gadwall has been found nesting a few counties to the north.

MARECA AMERICANA (Gmelin). Baldpate.
Common migrant.

The Baldpate is often found in the company of the Gadwall. The migration dates of these two species are about the same, though the Baldpate has not been known to breed in the state. Fairly large flocks of these two ducks have been noted during the last two years; we believe that both are increasing in numbers.

The Baldpate is occasionally seen on the park lakes.

NETTION CAROLINENSE (Gmelin). Green-winged Teal.
Very common migrant; occasional winter resident.

The Green-winged Teal arrives from the north during October; a few remain during the mild open winters. By the last week of April all have left for their northern breeding grounds.

On account of their habit of flying in compact flocks and of circling back to the same spot again and again, great numbers of these beautiful little ducks are killed by hunters.

They have often been noted on the park lakes.

QUERQUEDULA DISCORS (Linn.). Blue-winged Teal.
Very common migrant and occasional summer resident.

This duck returns from the north early and is the last to depart in the spring. Blue-wings begin to arrive early in September, the bulk passing during the latter part of the month and in early October. A few are seen as early as February on their return but the bulk of the flight is not present until late in April and many are observed well into May.

Pairs of Blue-wings are observed all summer wherever there are favorable nesting sites and if not disturbed would breed in numbers in the county. A brood of five young with the parent birds were observed on Mill Creek several times in June, 1916 (Bush).

This is one of the species of water fowl that is fortunately showing an increase in numbers. It has been reported as breeding in great numbers in northern Missouri and in northern and central Kansas during the summers of 1915, 1916 and 1917.

It is not uncommonly seen on the Swope Park lakes.

QUERQUEDULA CYANOPTERA (Vieillot). Cinnamon Teal.
Occasional visitant.

This western species has been noted many times in this vicinity, usually in the company of its near relative the Blue-wing.

A pair taken by Bryant in 1904 were killed within the city limits. A flock of five were taken by Tindall at Lake City in 1895. A single bird was observed on a nearby lake on April 17, 1915. Another was seen on the same lake on April 15, 1916, where it remained for over a week. Still another record comes from the same place in April, 1917.

SPATULA CLYPEATA (Linn.). Shoveller.
Very common migrant; possibly a rare summer resident.

The arrival and departure dates of this duck are about the same as those of the Blue-winged Teal.

Pairs of these birds, observed every May lingering about ponds and swampy bottom land, are without doubt seeking nesting sites but are driven out by unfavorable conditions.

This beautifully marked and easily recognized duck is frequently seen on the park lakes.

DAFILA ACUTA (Linn.).

DAFILA ACUTA TZITZIHOA (Vieillot). Proposed April, 1917. Pintail.
Abundant migrant.

Next to the Mallard and Lesser Scaup this is our commonest duck. Its arrival and departure is coincident with that of the Mallard.

Tremendous flights of Pintails and Mallards occur every season over the Missouri Valley and present a wonderful and impressive sight to bird lovers. Even at night the flocks may be heard passing overhead and the different species may be distinguished by their notes. On favorable mornings when the migration is at its height, the observer may look in any direction and see dozens of the flocks showing every conceivable variation of flight formation. The most favorable time for observation, if there be no fog on the river, is early dawn and for an hour or so afterward.

The Pintail, or Sprig, is almost certain to be seen during every migration on the Swope Park lakes.

AIX SPONSA (Linn.). Wood Duck.
Rare migrant and summer resident.

This once plentiful duck was a common breeder in the Missouri and Blue Valleys but is now seen only occasionally. As late as 1909 a pair nested in the neighborhood of the 27th Street bridge on the Blue River. This pair had raised a brood in this place every summer for many years but were finally driven off. On June 13, 1916, two nearly grown young males were observed at the mouth of Big Blue.

Nearly every duck hunter in the county owns a mounted specimen of this beautiful bird taken in this region.

Subfamily Fuligulinae. Sea Ducks.

MARILA AMERICANA (Eyton). Redhead.
Not uncommon migrant.

The Redhead was once an abundant migrant here but has been scarcer of late years, though it is probably again on the increase.

It arrives during early March (sometimes much earlier) and April on the northward flight and in late October and November on its return. It is occasionally seen in December.

Duck hunters generally bewail the disappearance of this fast flying and valuable duck but take every opportunity to slaughter it on sight.

MARILA VALISINERIA (Wilson). Canvas-back.
Not uncommon migrant.

Like the Redhead, the Canvas-back has greatly decreased in numbers, until where formerly hundreds were observed, now only dozens are seen. It is still regularly taken by hunters, sometimes amid floating ice in the river as early as February. It is often seen with Redheads and its migratory periods are about the same.

MARILA MARILA (Linn.). Scaup Duck.
Not uncommon migrant.

The Scaup Duck arrives from the south in March and April, earlier during some short winters, and leaves from the first week in November to the middle of December. It generally consorts with the two following species. Of late years it has not been seen in such large flocks as formerly.

All three species of the Scaup Ducks are known to local hunters by the name of Blackjack, though this one is sometimes called Bluebill.

MARILA AFFINIS (Eyton). Lesser Scaup Duck.
Abundant migrant.

The common Blackjack ranks with the Mallard and Pintail in point of numbers and has not noticeably decreased during the past few years. A familiar sight on the Missouri River, when the bulk of the birds are passing through on the northward flight, is to see immense rafts of these ducks floating down stream with the current busily engaged in their mating antics. They have favorite stretches of water for these floats and when they have arrived at the end of one where they commonly "use," the entire flock leaves the water and flies, sometimes miles, to the starting point to begin the float all over again. During these times they are easy of approach though they are becoming more wary of the motor-boat than formerly.

This duck is not a very desirable table fowl but is slaughtered in great numbers by the city hunters.

It is often found in the company of other species but prefers to flock with its own kind. It is to be found here all through the migrating season in varying numbers, though never in midwinter, and is often seen in rather large flocks on the different park lakes. Flocks rest for days on the lake in Penn Valley taking no notice of the traffic but a few yards away. Flocks of considerable size are often seen on the lakes in Swope Park.

MARILA COLLARIS (Donovan). Ring-necked Duck.
Not uncommon migrant.

This species precedes the other Scaup in the spring and is often found with the early Redheads and Canvas-backs. It is not as common as formerly but is regularly taken by the hunters. It is the least numerous of the Scaup.

CLANGULA CLANGULA AMERICANA Bonaparte. Golden-eye.
Rather rare migrant.

This strikingly marked duck is now only occasionally seen in twos and threes on the Missouri River, where formerly it was met with in migration in occasional flocks of dozens. The last

visiting flock of any size was noted on March 11, 1914. Two specimens were examined in a hunter's string in the spring of 1916.

CLANGULA ISLANDICA (Gmelin). Barrow's Golden-eye.

Very rare winter visitant.

This northern bird seldom wanders so far south and there are but two authentic records of its capture in this immediate neighborhood.

CHARITONETTA ALBEOLA (Linn.). Buffle-head.

Irregular and not common migrant.

Never of very frequent occurrence, this small duck is as likely to be met with in February as in May, returning from the north in late October and November. During some years several small flocks are seen and in other years none. The rivermen call this duck the Butterball and say that it does not occur as frequently as formerly.

HERELDA HYEMALIS (Linn.). Old-squaw.

Very rare winter visitant.

Authentic records of the occurrence of this duck are few, though several of the river fishermen claim to know the bird and to have seen it several times. One specimen was taken by Bryant in 1893.

HISTRIONICUS HISTRIONICUS (Linn.). Harlequin Duck.

Very rare winter visitant.

There are but two records of the occurrence of this northern duck in this vicinity. One specimen was taken by Wm. Andrews on the Missouri River at the Eaton tower (date not available) and the other was killed at Lake City by Bryant in 1887.

OIDEMIA AMERICANA Swainson. Scoter.

Irregular winter visitant.

River men claim to know this bird but the fact of its presence here was not authentically established until 1914. During the autumn flight of that year several dozen specimens were examined at different times. This was probably an exceptional invasion of this duck and the river hunters made the most of it.

Oidemia fusca (Linn.).

Melanitta deglandi (Bonaparte). Proposed April, 1917. White-winged Scoter.

Accidental.

The only authority for including this bird is the mounted specimen in the Public Library, without data but said to have been taken near by.

Oidemia perspicillata (Linn.).

Melanitta perspicillata (Linn.). Proposed April, 1917. Surf Scoter.

Very rare winter visitant.

A female Surf Scoter taken by Charles Dankers, near Corning, and beautifully mounted by that naturalist, is the only record of the occurrence of this duck in this part of Missouri. There are five records from Lawrence, one given by Vernon Kellogg (K. C. Scientist, 1891), and four by Bunker.

Erismatura jamaicensis (Gmelin). Ruddy Duck.

Not uncommon but irregular migrant.

Formerly a very common migrant, the Ruddy Duck has greatly diminished in numbers. It is irregular in its occurrence here, some years appearing in quite large numbers. A flock of between 50 and 100 was seen on March 15, 1916, floating down the Missouri River near the Hannibal Bridge.

Arriving early in March they hurry through and are back by the middle of October, and all have left by the last week in November.

Subfamily Anserinae. Geese.

Chen hyperboreus hyperboreus (Pallas). Snow Goose.

Fairly common migrant.

The white geese begin coming late in February and are not usually seen after the first ten days in April. They pass through on their return flight from the middle of October to the middle of November.

Occasional records for mid-winter and early February have led some observers to assume that this goose remains during open winters. It would be so easy for birds with such powers of flight to go south even for a short period (as their near relatives, the Blue Geese are known to do) that this assumption seems not to be warranted by the present evidence.

Hunters, especially on the Missouri River, still bring in comparatively large numbers of these geese and they are becoming more scarce every year.

When the "Migratory Bird Act" is enforced, if not too late, it is hoped that all the geese will immediately begin to increase.

CHEN HYPERBOREUS NIVALIS (J. R. Forster). Greater Snow Goose.

Not very common migrant.

This form of Snow Goose is not of such regular or common occurrence as the preceding but is occasionally taken by hunters. Only a few large Snow Geese have been seen during recent years and it is considered much more rare than formerly. There are five authentic records of its occurrence here during the past several seasons.

It is difficult to distinguish in the field from the smaller form.

CHEN CAERULESCENS (Linn.). Blue Goose.

Common migrant.

The time of arrival and departure of this goose is about the same as the Snow Goose except that it does not arrive so early as February.

Though not so abundant as formerly, the presence here of some very large flocks during the past two years encourages the hope that the species may be on the increase. Flocks of from 50 to 250 are not uncommonly seen on the Missouri River.

ANSER ALBIFRONS GAMBELI Hartlaub. White-fronted Goose.

Fairly common migrant.

Small flocks of White-fronted Geese sometimes arrive as early as the last week in February but the main flight is about a month later. They return about the middle of October and the last are seen sometimes as late as early December. These occasional February and December records have led some observers to think that the bird remains in mild winters. This is not believed to be the case since extended field work during January in several open winters has failed to show them present.

Troops of a few dozen birds are commonly seen all through migration times on the Missouri River and on April 12, 1917, a flock of 250 was observed.

BRANTA CANADENSIS CANADENSIS (Linn.). Canada Goose.

Fairly abundant migrant and somewhat common winter resident. Formerly a summer resident.

Flocks of hundreds of these geese are still to be seen, especially in spring. The Canada Goose arrives in early February and March and leaves on the southward flight in November or December, depending on the severity of the season. Canada Geese have been frequently observed wintering here and it has been no uncommon sight to see these wintering flocks tumbling pell mell into the current of the Missouri River amid great fields and agitated masses of floating ice. Great numbers have been killed over decoys in January from blinds built of blocks of ice on sand bars and points.

The Wild Goose was a common breeder here in the early days in the bottom land jungles.

Several farmers in this vicinity have extensive flocks of domesticated Canada Geese which breed freely in confinement.

Fine specimens of this and the Snow Goose as well as several species of the commoner ducks are to be seen in the Swope Park Zoo.

Long lines of these geese pass over the city during every season and on stormy nights during migration may be heard honking low over the house tops.

BRANTA CANADENSIS HUTCHINSI (Richardson). Hutchins's Goose.

Fairly common migrant.

This small subspecific form of the Canada Goose is often seen in rather large flocks and is sometimes found flocking with its big relative.

Owing to increased activity in manufacturing and transportation, some of the wilder and more wary water fowl have of late years avoided certain stretches of the Missouri River where they formerly "used," but this does not mean that there has been a proportionate decrease in their numbers. They simply seek greater seclusion further up the river or lower down. This small goose, in particular, is seldom taken in the county but is fairly common elsewhere in the vicinity.

Its high pitched gabbling note was formerly an important element in the wild music so keenly enjoyed and appreciated by ornithologists.

Subfamily Cygninae. Swans.

OLOR COLUMBIANUS (Ord). Whistling Swan.
Very rare migrant.

The Whistling Swan is still occasionally seen on the Missouri River. In 1897 a specimen was taken in the east bottoms by Bryant. Two specimens were brought in by a river hunter on November 22, 1915.

The older sportsmen tell of many swans being taken in Jackson County in former years but they are unable to distinguish the two species.

OLOR BUCCINATOR (Richardson). Trumpeter Swan.
Formerly a migrant; probably now extinct in this vicinity.

The Trumpeter Swan was formerly a regular migrant in the Missouri Valley. The only known specimen is the one in the Library collection. This bird was taken by Bryant in April, 1900, on a pond at 75th and Holmes.

Order HERODIONES. Herons, Storks, Ibises, etc.

Suborder **Ibides.** Spoonbills and Ibises.

Family IBIDIDAE. Ibises.

PLEGADIS GUARAUNA (Linn.). White-faced Glossy Ibis.
Very rare migrant.

This species is said to breed regularly in Kansas, even north of this latitude, but has been taken in Missouri but twice. Chas. E. Dankers took a specimen October 8, 1907, in Holt County.

Suborder **Herodii.** Herons, Egrets, Bitterns, Etc.

Family ARDEIDAE. Herons, Bitterns, etc.

Subfamily Botaurinae. Bitterns.

BOTAURUS LENTIGINOSUS (Montagu). Bittern.
Common migrant and rare summer resident.

The Bittern arrives about April 10th and leaves by the end of October. It is found here in the breeding season in suitable localities but the nest has not been discovered. It is common in migration and is to be seen along the streams and about lakes, ponds and marshes. Even the small marshy spot in the

woods by the Swope Park rifle range attracts its occasional migrating Bittern. On October 26, 1916, one was flushed from the bare prairie south of the Country Club region. This is characteristic of this species as they migrate broadcast over the country and do not follow the streams as do others of their kind.

IXOBRYCHUS EXILIS (Gmelin). Least Bittern.

Fairly common migrant and not uncommon summer resident.

The Least Bittern arrives early in May and leaves in September. It has been known to breed in the marshy places about Lake City and would no doubt be found nesting commonly in the county if more suitable localities were to be found. Several pair were found breeding at Sugar Lake, Platte County, in 1916.

It is a shy bird and active only in the evening in the places where it nests.

Subfamily Ardeinae. Herons and Egrets.

ARDEA HERODIAS HERODIAS Linn. Great Blue Heron.

Common migrant and occasional summer resident.

Great numbers of these large herons migrate up and down the Missouri River and resort to sloughs, backwater and shallows around sand-bars to feed.

The earliest birds arrive around March 18th and all have left by the last week in November. They have been found nesting in the tall trees by the old Hiffner Lake near Atherton. A few are met with regularly every summer during the entire season in favorable feeding places in the Missouri Valley. These birds may nest close by or a dozen miles away as they fly long distances to feed. A pair observed during the summer of 1906 at the mouth of the Blue were believed to have a nest in the timber on the Clay County side but it could not be located.

HERODIAS EGRETTA (Gmelin). Egret.

Formerly a summer visitant and possible summer resident.

The Egret has not been seen in this vicinity for twenty years. It was observed on the Blue River above Dodson in 1895. It has been observed on the river lakes in Platte and Buchanan Counties in former years.

EGRETTA CANDIDISSIMA CANDIDISSIMA (Gmelin). Snowy Egret.
Accidental.

The only record for this part of the country is a beautiful specimen in the Dankers collection taken in Holt County on April 14, 1904.

FLORIDA CAERULEA (Linn.). Little Blue Heron.
Irregular summer visitant.

The few small flocks of these herons that have been seen here are wanderers from the south after the nesting season. Ten specimens testify to its occurrence in this vicinity. Eight of these were taken from one flock by Chas. Dankers on August 20, 1916.

BUTORIDES VIRESCENS VIRESCENS (Linn.). Green Heron.
Common summer resident.

The Green Heron arrives about the middle of April and is seldom seen after the first of October. Every small wooded creek has its nesting pairs. It nests in Swope Park and along the Blue River within the city. It is very common in the Missouri Valley and in the valley of the Little Blue. It begins laying shortly after the middle of May.

This heron is less shy than others of the family and falls an easy prey to many thoughtless gunners, and for this reason alone is noticeably decreasing in numbers.

NYCTICORAX NYCTICORAX NAEVIUS (Boddaert). Black-crowned Night Heron.
Rare migrant and possible summer resident.

The Black-crowned Night Heron arrives about the middle of April and leaves by the middle of October. It is much less common than formerly. It has been known to breed in the counties to the north of us but the nest has never been found in Jackson County. It should be looked for in suitable localities.

NYCTANASSA VIOLACEA (Linn.). Yellow-crowned Night Heron.
Very rare summer resident.

The only authentic record of the occurrence of this heron in this vicinity is a pair seen at a nearby hunting resort on April 17, 1915.

Order PALUDICOLAE. Cranes, Rails, etc.

Suborder **Grues.** Cranes, Courlans, etc.

Family GRUIDAE. Cranes.

GRUS AMERICANA (Linn.). Whooping Crane.

Occasional migrant.

Charles Dankers is more favorably situated for observing the large water birds than any other observer in this part of the state. He reports this large crane as very rare. He collected a specimen on April 14, 1904, saw one on March 27, 1913, and noted a small flock of five birds on his farm in the spring of 1906.

Jno. A. Bryant, who states that this bird was common formerly, took a specimen in the spring of 1893, in this county.

GRUS CANADENSIS. Little Brown Crane.

Rather rare migrant.

The Little Brown Crane migrates regularly through this region and has been taken in adjacent territory on all sides. There is little doubt that a few of the sight records of the Sandhill Crane in this region properly belong to the Little Brown, as the two are not readily distinguishable in the field.

GRUS MEXICANA (Muller). Sandhill Crane.

Regular and not very rare migrant.

In favorable localities in this vicinity a few of these magnificent birds are seen regularly during every spring migration and occasionally in the fall. The following are some of Charles Dankers' dates:

March 23, 1902, a flock of thirty were seen.
March 30, 1903, a flock of thirty were seen.
March 22, 1905, a flock of twenty were seen.
April 8, 1906, one specimen was taken from a flock of ten.
April 15, 1906, a single bird was taken.
October 18, 1909, three specimens were taken from a large flock.
April 2, 1910, one specimen was taken.
March 23, 1911, a flock of fifteen was seen.
March 30, 1912, seven birds were seen.

March 24, 1913, a flock of fifteen was seen.

March 21, 1916, a flock of ninety was seen.

In the spring of 1917 (date not received) several small flocks were seen.

These data show that the Sandhill Crane arrives during the last week in March on the northward flight and that it sometimes returns this way during October.

A small number of these noisy cranes were heard circling low over the mouth of the Blue one stormy night in March in 1909. Two were seen by Judge Guinotte on the Missouri River during the first week of October, 1917.

Suborder **Ralli.** Rails, Gallinules, Coots, etc.

Family Rallidae. Rails, Gallinules and Coots.

Subfamily Rallinae. Rails.

Rallus elegans Audubon. King Rail.

Not uncommon migrant and rather rare summer resident.

The King Rail arrives early in April and leaves in late October. It has been reported breeding about Lake City and nests regularly in the up-river counties.

This rail is well known to duck hunters who report it a regular and not uncommon migrant on the neighboring lakes and swamps.

Dankers has mounted a pair with three young which were taken on his place on July 26, 1903.

Rallus virginianus Linn. Virginia Rail.

Common migrant and rare summer resident.

Tindall found this rail nesting at Lake City in 1892, 1895 and 1903. It is commonly seen in migration in the marshy places it frequents and its dates of occurrence are about the same as the following species.

Porzana carolina (Linn.). Sora.

Common migrant and rare summer resident.

The Sora arrives about April 18th and leaves in late October. It was found nesting by Bush and Tindall at Lake City on August 22, 1896. A set of ten eggs was taken near Independence and is now in the collection of O. E. Sheley.

COTURNICOPS NOVEBORACENSIS (Gmelin). Yellow Rail.
Rare migrant.

On account of its very retiring habits this rail is seldom seen. Tindall took a specimen near Independence on April 14, 1901. Dankers took one specimen at Corning on May 5, 1904, and two on October 15, 1916, in an alfalfa field. This October record is the only fall record for the State of Missouri.

This bird is said to be a rare summer resident a few counties north of here, but this statement has never been verified.

[CRECISCUS JAMAICENSIS (Gmelin). Black Rail.]
Possible migrant and summer resident.

There are no available records of the occurrence here of this elusive little skulker but there can be little doubt that it visits this vicinity regularly. It is included in this list to call the attention of students to the possibility of establishing its presence here.

Subfamily Gallinulinae. Gallinules.

ICNORNIS MARTINICUS (Linn.). Purple Gallinule.
Accidental.

An immature Purple Gallinule was captured alive and in a starving condition in the east bottoms on December 30, 1915. The skin is now in the collection of Miss Jennie Clements of Inedependence and is the only known record for this part of the country. There are but two other records for the State of Missouri.

GALLINULA GALEATA (Lichtenstein).

GALLINULA CHLOROPUS CACHINNANS Bangs. Proposed October, 1916. Florida Gallinule.
Not uncommon migrant and very rare summer resident.

For some unknown reason this bird arrives here about two weeks or more earlier than at St. Louis. Widmann reports that it arrives there after the first of May, but it has been seen here during several years from the 13th to 25th of April.

It was found nesting at Lake City by Tindall in 1904 and has been seen during the breeding season in Platte County in 1916 and 1917.

This bird was once very common and has only of recent years become rare.

Subfamily Fulicinae. Coots.

FULICA AMERICANA Gmelin. Coot.
Abundant migrant and not uncommon summer resident.

The bulk of the flight comes rather late, just ahead of the Blue-winged Teal and Shovellers, though a noticeable number are here often as early as the last week in February (twenty on Feb. 25, 1917). They begin leaving in September and very few are seen after early November.

Coots breed in the county wherever they can find suitable nesting sites. A pair nested on the Blue within the city limits during the summer of 1913, but succeeded in raising only one young. Immediately on the opening day of the shooting season all three birds were promptly slaughtered by the first hunter that passed on his way to the Missouri River.

Tremendous flocks of Mudhens migrate up the Missouri Valley and one flock seen on April 13, 1917, was estimated to contain ten thousand birds.

During the flight they are commonly seen on all the park lakes and city ponds.

Order LIMICOLAE. Shore Birds.

Family PHALAROPODIDAE. Phalaropes.

PHALAROPUS FULICARIUS (Linn.). Red Phalarope.
Very rare migrant.

The Red Phalarope is said by several of the river-fishermen to occur now and then during migration, but authentic records are scarce. A specimen was taken on the Kaw River near Lawrence on November 5, 1905; another specimen, the head and feet of which were examined, was taken by Wm. Andrews on the Missouri River in Jackson County on October 20, 1917. A few unauthenticated records are known.

LOBIPES LOBATUS (Linn.). Northern Phalarope.
Casual, probably accidental.

The only known record of the occurrence of the Northern Phalarope in this region is the specimen referred to by Widmann (p. 63), which was taken in Platte County, opposite Leavenworth. This species can be of only casual occurrence in this part of the country.

STEGANOPUS TRICOLOR Vieillot. Wilson's Phalarope.
Fairly common migrant.

The Wilson's Phalarope arrives from about April 20th to 25th (April 11, 1916) and again in August and September. Has been seen in spring as late as the middle of May.

Whenever the mud flats at the mouth of the Blue River are not submerged by backwater from the Missouri, large numbers of these beautiful birds resort there to feed and rest during their long migratory flights. They have been taken both in the showy spring plumage and the more sombre winter dress.

Family RECURVIROSTRIDAE. Avocets and Stilts.

RECURVIROSTRA AMERICANA Gmelin. Avocet.
Very rare migrant.

Rivermen have given us descriptions of birds taken which seem to apply to this species, but we have been able to find only the following actual records: Wm. Andrews took a specimen on the Missouri River near the Eaton tower in the spring of 1912. Bush reports one taken near Courtney in the spring of 1914. Bryant took a pair at Bean Lake in October, 1894.

Family SCOLOPACIDAE. Snipes, Sandpipers, etc.

PHILOHELA MINOR (Gmelin). Woodcock.
Very rare migrant and former summer resident.

Bush states that the Woodcock formerly nested in this county, but was never numerous either as a migrant or breeder.

Two were taken on the old Kenoche farm near the mouth of Big Blue by Bryant in the spring of 1894. Another specimen was taken near the same place by Dick Spiker on March 18, 1914. One was seen feeding in Shilo on May 30, 1915, by Walter Cunningham.

Very few of the great numbers that winter in the southeastern part of the state seem to come this way on their spring migration; it is probable that the bird is nearly extinct in this part of the country.

GALLINAGO DELICATA (Ord). Wilson's Snipe.
Fairly common migrant.

This once abundant game bird was formerly a common sight on every wet grassy spot. It is still present from about the

10th of March to the end of April (often later) and again from the first of September to the middle of November.

It still occurs in enough numbers to attract sportsmen and Jacksnipe shooting has not yet become obsolete for lack of victims.

A flock of a dozen or two spent a week on the wet meadow adjoining the Swope Park rifle range in early May of 1917. This is a favorable feeding place where they may be looked for every spring when conditions are right.

Fast-flying flocks of these birds are a rather common sight on the Missouri River during migration.

[Macrorhamphus griseus griseus (Gmelin). Dowitcher.]
Probable migrant.

While there are no specimens at hand to establish the occurrence of this bird here, there is no doubt that it passes up the Missouri Valley in its migration. A flock of shore birds seen at the mouth of the Big Blue late in the spring of 1916 was rather unsatisfactorily identified as belonging to this species or to the subspecies *scolopaceus*. It is listed here in order that students may be on the lookout for it.

Macrorhamphus griseus scolopaceus (Say). Long-billed Dowitcher.
Rare migrant.

A pair of these birds were collected by Dankers in Holt County on October 16, 1916. Lack of data prevents the working out of the migration periods. It is understood to have been common formerly, but has become a rare bird.

Micropalama himantopus (Bonaparte). Stilt Sandpiper.
Rather rare migrant.

A small flock of six birds was observed at the mouth of Big Blue on April 16, 1914. A specimen was taken near the city by Tindall on April 17, 1902, and another on April 30, 1902. Further migration data are lacking.

Tringa canutus Linn.

Canutus canutus rufus (Wilson). Proposed April, 1917. Knot.
Occasional migrant.

A beautiful specimen of this bird in full spring plumage was

taken on the lower Blue River on May 6, 1914, and another seen in the same place on May 8, 1914. A specimen has been reported from Platte County and another from a point about forty miles to the west. No other datum is at hand.

ARQUATELLA MARITIMA MARITIMA (Brunnich). Purple Sandpiper.

Accidental.

The Purple Sandpiper is listed on the strength of the specimen taken near here by Dr. Hoy in 1854 (19th Annual Report Smithsonian for 1864).

PISOBIA MACULATA (Vieillot). Pectoral Sandpiper.

Very common migrant.

The Pectoral Sandpiper arrives from the 12th to 18th of April, in some years much earlier (March 15, 1905; March 30, 1911; March 24, 1916), and is present until the last of May. It is seen sometimes as early as the middle of August, on the return flight from the north, and the last birds have not passed until early November. It is often observed in very large flocks along the Missouri bottoms about suitable shallow feeding places.

During the passing of the bulk of the flight, usually the last week in April, small flocks have been seen about the lagoon in Swope Park.

PISOBIA FUSCICOLLIS (Vieillot). White-rumped Sandpiper.

Not uncommon migrant.

This bird has been frequently observed on the river and a few times on ponds. All the available dates of its appearance are in the first week in May. The migration periods have not been worked out.

PISOBIA BAIRDI (Coues). Baird's Sandpiper.

Not uncommon migrant.

The Baird's Sandpiper is present from the middle of April to the first of June and from the last of August to nearly the middle of October (October 13, 1893). It is usually found with other small sandpipers. A recent record is one specimen taken on the Missouri River, near Courtney, by A. F. Frazier, on April 17, 1914.

PISOBIA MINUTILLA (Vieillot). Least Sandpiper.

Very common migrant.

The Least Sandpiper arrives as early as the 2nd of April and is present until the last week in May. The earliest southbound flock noted was on July 12, 1914, about three weeks earlier than the average time of arrival. The last have usually left by the last week in October.

This sandpiper is still seen in apparently as large numbers as formerly. It may be looked for about any small pond or stream, though most abundant on the sloughs and mud flats in the Missouri River flood plain.

PELIDNA ALPINA SAKHALINA (Vieillot). Red-backed Sandpiper.

Rare migrant.

A flock of fifteen Red-backed Sandpipers were closely watched on the mud flat at the mouth of the Blue on May 16, 1914. There are records of its occurrence here during four other years when specimens were taken.

The characteristic field mark of this bird in spring is the black belly. The student must not be led astray when he has under observation small shore birds of other species that have waded out in soft mud and stained the under parts.

EREUNETES PUSILLUS (Linn.). Semipalmated Sandpiper.

Very common migrant.

The migration dates for the Semipalmated Sandpiper are about the same as for the Least Sandpiper. These two species are among the commonest shore birds and occur in about equal abundance. They are found along the river sometimes in immense flocks and are often accompanied by other small sandpipers and Semipalmated Plovers.

While feeding these flocks may be easily approached and studied at close range, as they are not so wild as the larger shore birds which are more often disturbed by gunners.

EREUNETES MAURI Cabanis. Western Sandpiper.

Occasional migrant.

Several specimens of this sandpiper have been taken in this part of the country, both to the east and west, but not in this immediate neighborhood. It has been identified two or three

times in spring flocks of other shore birds, but no specimens have been taken.

CALIDRIS LEUCOPHAEA (Pallas). Sanderling.
Occasional migrant.

A small flock of six Sanderlings was seen on March 21, 1902, and a single specimen was taken on April 17, 1902. There are no further local data for this species.

LIMOSA FEDOA (Linn.). Marbled Godwit.
Rare migrant.

This large wader, though formerly common, has become quite rare. A small flock was seen on the river April 18, 1911. Two specimens in the Dankers collection were taken May 8, 1908.

LIMOSA HAEMASTICA (Linn.). Hudsonian Godwit.
Rather rare migrant.

The Hudsonian Godwit is occasionally seen in small flocks on the Missouri River. A group of nine finely mounted birds in the Dankers collection were taken on that farm May 15, 1910. A few birds were seen April 20, 1911, and a flock of twelve were observed on April 28, 1916.

TOTANUS MELANOLEUCUS (Gmelin). Greater Yellow-legs.
Fairly common migrant.

The Greater Yellow-legs arrive from the south from the 18th to 22nd of March, becoming fairly common between April 10th and 20th and are rarely seen after the first of May (two late dates are May 6, 1914, and May 9, 1914). They are found here irregularly in the fall from the first of September to the middle of November.

TOTANUS FLAVIPES (Gmelin). Yellow-legs.
Fairly abundant migrant.

The pleasing double and triple whistle of the Yellow-legs is to be heard on all sides in favorable places when the spring flight is at its height, usually from the 12th to 25th of April. The migration dates are about the same as for the preceding species, except that it remains a little longer on the northward flight and arrives earlier on the return, usually about the middle of August.

An exceptionally heavy flight during the latter part of April,

1917, is a hopeful sign that the bird is at least not materially decreasing in numbers.

It is often seen along the Blue, especially along the lower reaches, and about the Swope Park lagoon.

HELODROMAS SOLITARIUS SOLITARIUS (Wilson). Solitary Sandpiper.

Very commmon migrant.

The Solitary Sandpiper is present in spring from the middle of April to the middle of May and in autumn from the middle of August to early in October, an exceptionally late date being October 31, 1901.

It is to be found everywhere along waterways, lakes, ponds, and even woodland pools. It was found late in April, 1917, with the Bittern and Grinell's Water Thrush in the little swampy place in the timber just off the rifle range in Swope Park. During migration it is common all along the Blue and even on Brush Creek.

CATOPTROPHORUS SEMIPALMATUS SEMIPALMATUS (Gmelin). Willet.

Not rare migrant.

The Willet has been seen infrequently of late years, but its plaintive whistle is regularly heard at night during migration, especially in blustery weather. This may, of course, be the western form, but both occur here. A specimen taken by Bryant on April 9, 1903, is said to be referable to the eastern form, but has not been examined. Two specimens have been taken thirty miles west of this county.

CATOPTROPHORUS SEMIPALMATUS INORNATUS (Brewster). Western Willet.

Rare migrant.

Three birds of this subspecies were taken from a flock on a slough in the Missouri bottoms on May 6, 1914. This is all the local data on this bird available at this time.

BARTRAMIA LONGICAUDA (Bechstein). Upland Plover.

Not uncommon migrant and rare summer resident.

This fine game bird was formerly abundant on the prairie regions of Jackson County and was brought in in great numbers by

sportsmen. The prairie around Waldo and what is now the Country Club district were favorite hunting grounds and an occasional migrant is still seen in that vicinity.

They formerly bred commonly in the county and a nesting pair were seen by Bush as late as 1902 near Swope Park. Two sets of eggs were taken near Independence by Tindall on June 11, 1891, and June 17, 1891, respectively. A few specimens have been taken lately by Dankers.

The Upland Plover is often heard migrating at night in the last week of April and in August and September.

TRYNGITES SUBRUFICOLLIS (Vieillot). Buff-breasted Sandpiper.
Rather rare and irregular migrant.

This bird, sometimes called the Grass Snipe, appears during the last half of April and first half of May and again in September. During some years it is not seen. It generally occurs in small flocks and but few specimens have ever been taken here. Chas. Tindall took nine birds from a rather large flock on a sandbar in the Missouri River near the Eaton bend on September 15, 1901.

This sandpiper may be looked for on the uplands as well as near water.

ACTITIS MACULARIUS (Linn.). Spotted Sandpiper.
Very common migrant and not uncommon summer resident.

The Spotted Sandpiper arrives about April 20th (April 9, 1915, earliest) and but few are seen after the middle of October. The bulk of the flight passes north in early May and south in September. These birds are present in some numbers all through the summer.

In migration Spotted Sandpipers may be looked for wherever there is water, but in summer are found only on or near the Missouri River.

NUMENIUS AMERICANUS Bechstein. Long-billed Curlew.
Occasional migrant.

Hunters seem to know this bird very well, but are unable to give any information regarding it except that it was once common and is now rarely seen.

Only six authentic records are known of its occurrence here. One is given by Bush, who saw a flock of seven in the spring of

1906. A single bird was observed May 25, 1905. Two specimens have been taken by Bryant at Cooley Lake and Lake City respectively. Four birds were seen by Judge Guinotte on a sandbar near Sibley on November 2, 1917.

NUMENIUS BOREALIS (J. B. Forster). Eskimo Curlew.
Formerly common spring migrant, now probably extinct.

This curlew, like the Golden Plover, migrates south over the Atlantic Ocean from Nova Scotia in the fall, only a few choosing the inland route at that season, but all return in the spring up the Mississippi and Missouri valleys. No specimen of this once common game bird has been seen in this vicinity for many years and it is now considered nearly, if not quite, extinct.

Family CHARADRIIDAE. Plovers.

SQUATAROLA SQUATAROLA (Linn.).

SQUATAROLA SQUATAROLA CYNOSURAE Thayer & Bangs. Proposed October, 1916. Black-bellied Plover.
Very rare and irregular migrant.

This bird was a not uncommon migrant prior to 1890; it has now become so rare that many years pass without one being seen. None had been seen or reported for five years prior to 1916, when Tindall killed one out of a small flock on the Missouri River near Courtney on November 13th.

CHARADRIUS DOMINICUS DOMINICUS (Muller). Golden Plover.
Not rare migrant in spring; very rare in autumn.

Like the Upland Plover, the Golden Plover was formerly taken in great numbers on the prairie regions of western Jackson County. It is now greatly reduced in numbers, though small flocks are still seen during the latter part of April and rarely in October and November, as the bulk of the flight in autumn takes the Atlantic route.

It is to be looked for on the uplands as well as about marshes and swampy places.

OXYECHUS VOCIFERUS (Linn.). Killdeer.
Common migrant and not uncommon summer resident.

The early arrivals from the south appear from the middle to the last of February and a month later the bulk of the mi-

grants are here. The heaviest flight is here again during September and early November.

The Killdeer may be looked for everywhere about water, in upland fields and meadows, and on the prairies. It has been frequently seen in Swope Park.

Aegialitis semipalmata (Bonaparte). Semipalmated Plover.
Fairly common migrant.

This little plover is usually found in the company of other small shore birds and is not often found far from the Missouri River. The earliest date of arrival is April 19th (1899 and 1914). It is present until the middle of May and again from about the 10th of August until late in September.

Aegialitis meloda (Ord). Piping Plover.
Very rare migrant.

The Piping Plover occurs occasionally on the Missouri River. Only one specimen has been taken in the vicinity.

Podasocys montanus (J. K. Townsend). Mountain Plover.
Accidental.

Bush asserts that several pairs of these western birds nested in the meadows near Courtney in 1887. He states that they have been found in small numbers during a few other years, but the bird can be considered as only accidental here.

Family Aphrizidae. Surf-birds and Turnstones.

Subfamily Arenariinae. Turnstones.

Arenaria interpres morinella (Linn.). Ruddy Turnstone.
Occasional migrant.

A flock of seven of these birds was seen on the Missouri River, in Jackson County, on April 30, 1903. There are only two records of specimens taken in this vicinity, the latest being on October 20, 1917, by William Andrews, on the Missouri River, near Courtney.

Suborder **Phasiani.** Pheasants, Grouse, Partridges, Quails, etc.

Family Odontophoridae. Bob-whites, Quails, etc.

Colinus virginianus virginianus (Linn.). Bob-white.
Common resident.

The Bob-white nests regularly within the city limits. In 1915

five nests were found inside the southern and western boundaries. Winter coveys are likely to be found anywhere in the county, in the Missouri bottoms, on the prairie regions or wherever there is suitable cover.

The local migrations of these birds from exposed to more sheltered places, spoken of by Widmann, has once been observed by Bush. He saw a large covey alight in an exhausted condition on the river bank near old Wayne City after having crossed a wide expanse of river. Several of the birds were unable to make the flight and fell into the current.

An occasional albino is seen and there are several specimens extant.

Family Tetraonidae. Grouse, Spruce Partridges, Ptarmigans, etc.

Bonasa umbellus umbellus (Linn.). Ruffed Grouse.

Former resident; now extinct.

According to Bush, the Ruffed Grouse made its last stand in the wooded hills of the Little Blue in the southeastern part of the county. They were long ago driven out by the settling of the country and only the older sportsmen remember them.

The specimen preserved by Bryant was taken by him near Independence in 1874.

Tympanuchus americanus americanus (Reichenbach). Prairie Chicken.

Former resident; probably now extinct in this county.

A Prairie Chicken seen in the southeastern part of the county in 1915 was probably a straggler from the north, as the bird has not been regularly noted here since late in the nineties.

It was formerly abundant about the city and as late as 1884 resorted regularly in the evenings to a feeding place on what is now known as Hospital Hill.

Tindall found a nest containing twelve eggs near Independence on May 7, 1891. Three specimens in the Dankers collection were taken prior to 1904. This bird is gone from Jackson County never to return.

Family MELEAGRIDAE. Turkeys.

MELEAGRIS GALLOPAVO SILVESTRIS Vieillot. Wild Turkey.
Formerly an abundant resident. Now extinct in this vicinity.

Many records exist testifying to the local abundance of the Wild Turkey in early days. The latest dates are given by Bryant, who says: "Killed in Swope Park region in 1863. Many killed on Little Blue several years later."

It is reported from several districts in south Missouri, especially in the southeastern part, that the Wild Turkeys find the cover of the second-growth timber very much to their liking and that they have materially increased during recent years.

Order COLUMBAE. Pigeons and Doves.

Family COLUMBIDAE. Pigeons and Doves.

ECTOPISTES MIGRATORIUS (Linn.). Passenger Pigeon.
Formerly an irregular visitant in immense flocks. Now extinct.

Tremendous hordes of Wild Pigeons formerly visited this region. Bush says that in the autumn of 1879 the country southwest of Independence was visited by millions of them. Bryant says: "Passenger Pigeons here in 1873 and 1874. Killed fifteen at one shot in September, 1873."

ZENAIDURA MACROURA CAROLINENSIS (Linn.). Mourning Dove.
Very common summer resident; somewhat rare winter resident.

The Mourning Dove is found everywhere in the county, arriving generally from the first week to the last week in March and leaving in October and November. Single birds and flocks of from three to six have been found wintering here during the last five winters.

They lay their two eggs early in May and raise two and sometimes three broods. A nest is occasionally found containing three or four eggs, when two females use the same nest. The nest is a makeshift affair and may be found on top of horizontal limbs, low down or high up, in forks, on stumps, in vines, and even on the bare ground.

The Dove builds its nest in the city in favorable localities, such as the Country Club and Rockhill regions, Cliff Drive, Swope Park, and all the cemeteries.

[ZENAIDURA MACROURA MARGINELLA (Woodhouse). Western Mourning Dove.]

Recent subspecies. Probable migrant and summer resident.

This recently separated form is said to range eastward into the Mississippi Valley. When more specimens have been taken for comparison, it will without doubt be found to occur regularly in migration as well as in summer.

Order RAPTORES. Birds of Prey.

Suborder **Sarcorhamphi.** American Vultures.

Family CATHARTIDAE. American Vultures.

CATHARTES AURA SEPTENTRIONALIS Wied. Turkey Vulture.

Common migrant and summer resident.

A few Turkey Vultures arrive from the south in the latter part of February, but more often in the first half of March. They leave during November and December, though a few may remain into the first week in January.

The Buzzard nests in secluded places throughout the county, chiefly in the cliffs along the water courses. Fifteen or twenty pairs (twenty-seven birds have been seen circling at one time) nest regularly in the rocky ledges in and about Swope Park and have a common roost near the point where the Hickman's Mills Road branches.

They begin laying from the middle of April to the first of May and build no nest. The two beautifully marked eggs are to be found on the bare ground among rocks, in stumps, hollow trees and logs.

Suborder **Falcones.** Vultures, Falcons, Hawks, Buzzards. Eagles, Kites, Harriers, etc.

Family BUTEONIDAE. Hawks, Eagles, Kites, etc.

ELANOIDES FORFICATUS (Linn.). Swallow-tailed Kite.

Occasional summer visitant; rare summer resident.

Recent dates for the Swallow-tailed Kite, given by Bush, are as follows: In the summer of 1912 two pairs nested in the bottoms near Courtney; on March 22, 1916, one was seen at Court-

ney; on July 8, 1916, two were seen at Courtney, remaining in the neighborhood for about two weeks.

Tindall took a specimen near Independence on July 16, 1904, and another on September 1, 1906. The specimen in the Library collection was loaned by O. E. Sheley, who killed the bird near Independence.

Bryant states that a pair nested just southwest of Waldo several years ago, but does not furnish the date.

Several other observers have seen this graceful bird in the timbered regions of the Missouri Valley during recent years.

Ictinia mississippiensis (Wilson). Mississippi Kite.
Rare migrant.

The Mississippi Kite has been reported from several points in Missouri adjacent to this district on the north and east. Several specimens have been taken near Lawrence (Bunker and Wetmore, September 13-16, 1907), and there are later records, not available, of its occurrence in that neighborhood. This kite probably occurs in Jackson County during migration and should be looked for about open wooded places where cicadas are plentiful, or in fields and meadows where grasshoppers are found.

Circus Hudsonicus (Linn.). Marsh Hawk.
Common migrant and rare winter resident. Formerly a rare summer resident.

The Marsh Hawk is seen ranging over the prairie regions as well as in the Missouri bottoms and swampy and marshy places from about March 12th to about April 25th and on the return from September 15th to between December 28th and January 7th. At least two birds remained near the Country Club district during the entire winter of 1916-1917. An earlier winter record is February 13, 1898.

Though a common summer resident not far to the north and formerly a rare breeder in this vicinity, it has not been found nesting here for several years.

Accipiter velox (Wilson). Sharp-shinned Hawk.
Uncommon migrant and summer resident.

A few Sharp-shinned Hawks are seen during each migration about wooded places and along streams, but they are never com-

mon. There are only a few summer records and none for winter.

ACCIPITER COOPERI (Bonaparte). Cooper's Hawk.
Common migrant and summer resident; occasional winter resident.

This harmful species arrives during the first few days in March and is present until late October. There is but one winter record (January 20, 1917) and no specimens have been taken during midwinter, though Bush says that it is present throughout the entire year.

The nest is found in timbered places, usually in a fork about thirty feet high, and a full clutch is four or five eggs. Four sets in the Tindall oological collection, two of four and two of five eggs, were taken near Independence between the 1st and 29th of May.

This hawk may be looked for about the Swope Park region and in the country west of Dodson, as well as in the timbered bottoms of the Missouri River country.

ASTUR ATRICAPILLUS ATRICAPILLUS (Wilson). Goshawk.
Very rare and irregular winter visitant.

At infrequent intervals this northern hawk is known to invade this part of the country during the late fall and winter. The winter of 1916-1917 witnessed such an invasion. Over fifty specimens were sent in to the University Museum at Lawrence during the winter, most of which had been taken in the neighborhood. One was killed near Dodson and another seen on December 5, 1916.

Three specimens in the Dankers collection were taken February 17, 1902, November 2, 1906, and December 1, 1906, respectively.

Goshawks may be looked for here only during the most severe winters.

BUTEO BOREALIS BOREALIS (Gmelin). Red-tailed Hawk.
Common resident.

Red-tailed Hawks are present in numbers throughout the winter; they become more numerous late in February and the bulk of the migrants are here around the 12th of March. By the last week in March the local birds are nesting. Sixteen sets of eggs collected by Tindall of from one to three eggs each

were taken between March 19th and April 12th. The nests are usually found in very tall trees in the Missouri bottom lands and less frequently in timbered places elsewhere in the county.

The bulk of the returning migrants pass through during the latter part of October and early November. The wintering birds are to be found hunting in the prairie regions as well as in the timbered bottoms.

This hawk is a great destroyer of vermin and instead of being shot on sight by farmers and sportsmen should be protected and encouraged to remain.

BUTEO BOREALIS KRIDERI Hoopes. Krider's Hawk.
Occasional visitant during migration.

Krider's Hawk has been observed a few times on the prairie regions south of the Country Club district near open timbered places. On October 15, 1916, one was studied at close range and identification was made certain.

A specimen taken by Dankers was killed October 16, 1898.

This light phase of the Red-tail is nowhere common but this vicinity is a favorable locality to look for it during migration and possibly in winter. More data relative to its local occurrence is desired.

BUTEO BOREALIS CALURUS Cassin. Western Red-tail.
Rare winter visitant.

A Western Red-tail was closely observed in the Brush Creek timber just inside the state line on November 5, 1916. Many Red-tails suspected of belonging to this dark race are seen every winter but only one specimen has been taken to prove its occurrence in the vicinity—November 7, 1913.

BUTEO BOREALIS HARLANI (Audubon). Harlan's Hawk.
Casual visitant.

A specimen of this southern hawk, taken on a farm about twelve miles from Kansas City, was mounted by Kreite, a local taxidermist, in 1916. The specimen was not personally examined but is vouched for by Mr. J. F. Frazier, whose identification cannot be questioned.

BUTEO LINEATUS LINEATUS (Gmelin). Red-shouldered Hawk.
Uncommon migrant and summer resident.

Widmann says that as a summer resident in Missouri this

hawk far outnumbers its cousin the Red-tail, but this is not true of this part of the state where the latter greatly predominates.

The Red-shouldered Hawk is present during the entire year but is never common. The dates of occurrence of migrants are about the same as those of the Red-tail.

A favorite resort for these birds is the wooded bluff regions along the Missouri Valley.

BUTEO SWAINSONI Bonaparte. Swainson's Hawk.
Occasional migrant.

Swainson's Hawk but rarely straggles into the county and then only during migration.

Dankers has taken two specimens during recent years. A pair have been found nesting about thirty miles southwest of this county.

We have very little additional data as to the local occurrence of this hawk.

BUTEO PLATYPTERUS (Vieillot). Broad-winged Hawk.
Rather rare summer resident.

The earliest record of the arrival of the Broad-winged Hawk in spring is April 8, 1914. All other recorded dates are near the end of the month. It usually leaves late in October.

It was found nesting near Independence in June, 1900 (Tindall). A nest was located in the wooded bend of the Blue River south of the rifle range in Swope Park in May, 1917. A pair were disturbed while perched on an unfinished nest in a tall tree in the timber near the mouth of the Blue in the spring of 1914. This was an unusual place for these birds as they prefer the upland woods to the bottom land.

ARCHIBUTEO LAGOPUS SANCTI-JOHANNIS (Gmelin). Rough-legged Hawk.
Fairly common winter visitant.

The Rough-leg arrives from the north as early as October 28 (1916), though more often a week or two later. It is not often seen after March 12th (an exceptionally late date is April 4, 1917).

It may be looked for during winter, in any place in the

county where there is suitable cover for small rodents, as it is a persistent hunter of such game. It is commonly seen in the Missouri bottom lands as well as on the prairie country.

Many intergrades between the different color phases have been noted.

[Archibuteo ferrugineus (Lichtenstein). Ferruginous Rough-leg.]

Probable winter visitant.

This hawk is thought to occur irregularly in winter on the prairie country along the western border of the county but not sufficient data have been obtained to establish the fact definitely. The few field identifications have been unsatisfactory and no specimen has been taken.

Aquila chrysaetos (Linn.). Golden Eagle.

Very rare winter visitant.

Seven specimens of the Golden Eagle are known to have been taken during recent years in this vicinity. It is probable that many more have been taken. It was formerly more common and only during the past few years has become a rarity.

Haliaeetus leucocephalus leucocephalus (Linn.). Bald Eagle.

Rare winter visitant. Formerly a very common winter resident and rare summer resident.

The older river shooters well remember the days when the Bald Eagles were here in fall and winter in great numbers along the river. In those days the sand-bars and low banks were fringed with red offal from the packing houses and Bald Eagles came in droves to the feast. Not until the packers began utilizing all their waste did these big birds disappear as regular winter visitants in numbers.

They formerly nested in the tall trees in the deep wooded bottoms along the Missouri River. One early account even speaks of a nest on a farm on the old Lexington Road (Swope farm, Bryant).

They are still occasionally seen soaring above but must now be classed among the rare species.

Family Falconidae. Falcons, Caracaras, etc.

Subfamily Falconinae. Falcons.

Falco mexicanus Schlegel. Prairie Falcon.
Accidental visitant.

The only record of the local occurrence of this falcon is the specimen taken by Bryant in 1887. It may occasionally straggle into the county during its migratory wanderings but there is no further positive evidence of this.

Falco peregrinus anatum Bonaparte. Duck Hawk.
Uncommon migrant.

This pirate among birds was a former summer resident in this vicinity and is known to have nested along the river bluffs.

It has not been often observed of late years, the only available dates being March 29, 1904, May 3, 1908 (specimen), September 18, 1914.

Falco columbarius columbarius Linn. Pigeon Hawk.
Uncommon migrant.

There are but ten available authentic records of the local occurrence of this falcon; not enough to show the migration extremes.

It may be looked for about timbered and open country during April and October. It is of only casual occurrence and does not winter here.

[Falco columbarius richardsoni Ridgway. Richardson's Pigeon Hawk.]
Probably a rare migrant.

Though no specimens have been taken, this subspecies is no doubt of local occurrence during migration as it has been reported several times from surrounding territory. It is not easily distinguishable in the field from the Pigeon Hawk and specimens will have to be taken to establish its presence here.

Falco sparverius sparverius Linn.

Cerchneis sparveria sparveria (Linn.). Proposed April 1917. Sparrow Hawk.
Very common resident.

This is our commonest and most beautiful hawk and is found

throughout the year, though more numerous during the breeding season. It nests freely within the city, even occasionally in the business district (Hall Bldg. 1916), where it may also be seen in winter feeding on the bountiful supply of English Sparrows. It will nest in any kind of a cavity and should be encouraged to remain by the placing of properly constructed nesting boxes.

The Sparrow Hawk has been proven to be a decidedly beneficial species, as it destroys large quantities of noxious insects and English Sparrows.

Family Pandionidae. Ospreys.

Pandion haliaetus carolinensis (Gmelin). Osprey.

Not uncommon migrant; former summer resident.

The Fish Hawk is seen regularly during April and early May and in September and October. It may be looked for on the Missouri River or about large ponds and lakes. Three were seen over the Lake of the Woods on September 12, 1914, and single birds have been frequently observed there.

The last pair known to have nested in the county was reported by Bryant in 1884. This pair had their nest on the rocks on a high point of the bluffs north of Independence.

The Osprey is said to breed in the bottom timber a few counties to the north.

Suborder **Striges.** Owls.

Family Aluconidae. Barn Owls.

Aluco pratincola (Bonaparte).

Tyto alba pratincola Hartert. Proposed October, 1916. Barn Owl.

Uncommon resident.

Specimens of the Barn Owl taken in this vicinity during May, June and July show that the bird must breed here, and there is one locally taken set of eggs known. Bush and Tindall state that it breeds in the neighborhood of Courtney and Independence.

It may be looked for about open farming country as well as

in orchards and open timbered places. It builds in hollow trees, barns, belfreys and similar places.

Family Strigidae. Horned Owls, etc.

Asio wilsonianus (Lesson). Long eared Owl.

Uncommon summer resident; common migrant and winter resident.

The Long-eared Owl occurs chiefly in the timbered bottoms, both in winter and during the breeding season. Small flocks have often been seen there in late autumn and winter; Bush reports one flock of sixty birds wintering near Courtney. A flock of about thirty are found nearly every winter in the large stand of cottonwood timber across from the mouth of the Big Blue.

Long-eared Owls begin laying their five or six eggs early in March and often refit and reline with feathers for their own use, old nests of crows and squirrels.

Asio flammeus (Pontoppidan). Short-eared Owl.

Fairly common migrant; irregular winter resident; very rare summer resident.

The Short-eared Owl arrives from the north in early or middle October and leaves in March. During open winters when the snowfall is light, flocks of from 8 to 10 to 50 or more may be found wintering where suitable grassy or weedy roosting places are near good hunting ground. Such places are common on the high prairie regions where this owl's favorite game abounds, though the open stretches of grassy bottom lands afford equally good wintering resorts. A flock of 15 or 20 birds spent the winter of 1916-17 in the neighborhood of 63rd Street west of Broadway, where they roosted in a patch of weeds and high grass within a hundred yards of several houses under construction on one side, and a noisy foot-ball field on the other. When flushed from their roosting ground in the high grass, they sail around gracefully like gulls and perch about on fence posts or drop down further on in the grass and sometimes even on the bare ground in plain sight. During these flights they emit a low plaintive cry reminiscent of the Green Heron's note though much less harsh. Several of the stomach pellets collected on this roost were sent to the mammalogists of the National Museum to determine the species of rodent that consti-

tutes the chief diet of the owl. The skulls contained in the pellets belonged to the species *Microties ochrogaster* (Wagner).

During the late fall of 1917, a large scattered flock of these owls were seen in the open bottom country near the mouth of Big Blue, where they remained until well into December. Many hundred acres of newly formed land overgrown with typical sand-bar and lowland vegetation, bordered with thickets of young willows, afforded ideal roosting places. An unusual feature of their stay at this time was their feeding on the Tree Sparrows that frequented the willow thickets in droves. Nearly every pellet opened contained skull, sternum or other token of these small birds. Here is an indictment against this owl not corroborated in the books. The fact of their resorting to this unusual diet, as well as their moving further south before the arrival of very severe weather conditions, may be accounted for by the absence of their favorite rodent prey on this new ground.

The only breeding pair so far discovered in this vicinity was reported by Smithson of Warrensburg during the summer of 1903.

Strix varia varia Barton. Barred Owl.
Common resident.

The Barred Owl is a denizen of the woods about the city where it nests in cavities of large trees and where it is present during the entire year. The wooded bottom lands are favorite haunts and even such places as Fairmount Park, Mount Washington, Swope Park and other wooded tracts close in, have harbored nesting pairs of these big owls.

Cryptoglaux acadica acadica (Gmelin). Saw-whet Owl.
Very rare winter visitant.

Only one specimen of this small owl has so far been reported. One was found dead on Summit Street in 1894 by Bryant.

Otus asio asio (Linn.).

Otus asio naevius Gmelin. Proposed April, 1917. Screech Owl.
Very common resident.

The Screech Owl is a common bird within the city, nesting in early March about the boulevards and parks, wherever suit-

able cavities are to be found. A pair nested for fifteen years at Armour Boulevard and Campbell, another at Valentine Road and Broadway, and others have been regularly seen or heard in many other neighborhoods.

They have been observed lurking about street lights in search of large insects or possibly toads. They are known to prey on mice and English Sparrows and should be carefully protected.

It is doubtful if this owl is as common about the city as formerly, since it is frequently killed or driven away under the impression that it is a destroyer of song birds. One instance is known of six (two adults and four grown young) being killed in one evening.

An examination of dozens of specimens taken in this vicinity leads to the belief that the gray color phase predominates here.

BUBO VIRGINIANUS VIRGINIANUS (Gmelin). Great Horned Owl.
Fairly common resident.

The eight or ten specimens of this big owl in the Swope Park Zoo are said to have been captured within the boundaries of the park.

Great Horned Owls have been found nesting several times in the timber along the Blue and in the Missouri bottoms. Old hawk's nests are sometimes refitted and used, but more often the eggs are laid in natural cavities in trees. The birds begin laying late in January or early in February.

[BUBO VIRGINIANUS PALLESCENS Stone. Western Horned Owl.]
Probably a casual resident.

The presence of this subspecies will no doubt in time be established here as it is known to range much further east. No specimen has yet been taken in this vicinity.

NYCTEA NYCTEA (Linn.). Snowy Owl.
Very rare winter visitant.

This far northern species has been seen here but three times. It ranges thus far south only during the coldest winters. A specimen taken by Jno. Bryant many years ago has been destroyed. There are three specimens in the Dankers collection.

SPEOTYTO CUNICULARIA HYPOGAEA (Bonaparte). Burrowing Owl.
Accidental visitant.

The only specimen of this plains bird known to have been

taken in the State of Missouri was killed by Chas. Dankers on April 19, 1902, at Corning in Holt County.

It may occur occasionally on the prairie regions along the western border of this county, since it has been reported not far to the west.

Order PSITTACI. Parrots, Macaws, Paroquets, etc.

Family Psittacidae. Parrots, Macaws and Paroquets.

Conuropsis carolinensis (Linn.).

Conuropsis carolinensis ludoviciana (Gmelin). Proposed April, 1917. Carolina Paroquet.

Formerly an abundant resident; now extinct.

Narratives of early travel up the Missouri River make frequent mention of the abundance in this locality of this beautiful but noisy bird. The bottom lands were its favorite haunt, since its natural food, the cockle-bur, grew, and still grows, there in great profusion. It ranged in flocks over the surrounding country and was a familiar color note in the landscape.

It is authoratively stated to have nested in hollow trees in the dense forests of the Missouri River flood-plains during the times of its abundance here.

There is a specimen in the Public Library taken by Bryant in 1894. This was no doubt a straggler as Widmann states that the flocks of Paroquets seem to have faded from Missouri with the fifties.

In some unaccountable manner a lone bird strayed into the Courtney bottoms in 1912 and was observed by Bush for several weeks before it finally disappeared.

Order COCCYGES. Cuckoos, etc.

Suborder **Cuculi.** Cuckoos.

Family Cuculidae. Cuckoos, Anis, etc.

Subfamily Coccyzinae. American Cuckoos.

Coccyzus americanus americanus (Linn.). Yellow-billed Cuckoo.

Common summer resident.

The first day of May usually sees the first Cuckoo here from

the south. Between the 15th and 23rd of September the last southward bound birds have generally left, though an individual bird lingers now and then into October. Some exceptionally late dates are October 19, 1893, October 2, 1915, and October 22, 1916.

The nest is a very flimsy affair indeed as the eggs are often visible from beneath through the loosely constructed platform of coarse twigs. Three or four and rarely five greenish eggs are laid sometimes during June.

There are many particulars regarding the life history of this peculiar bird that are worthy of attention; such as their apparent occasional parasitism, the simultaneous bursting of all the feather sheaths of the nestlings, the peculiar and unique mating behavior and their habit of feeding on certain irritating insect larvae that but few, if any, other birds will eat.

COCCYZUS ERYTHROPHTHALMUS (Wilson). Black-billed Cuckoo.
Uncommon migrant and rare summer resident.

The arrival and departure of this cuckoo as well as its nesting habits, behavior and other points of life history are the same as those of the Yellow-billed, though it is far less frequently seen.

A close observer may readily distinguish it in the field from the Yellow-billed. It should be looked for during the breeding season as but scant local nesting data has been secured.

There are but three or four known sets of eggs in local collections that have been taken in this vicinity.

Suborder **Alcyones.** Kingfishers.

Family ALCEDINIDAE. Kingfishers.

CERYLE ALCYON (Linn.). Belted Kingfisher.
Common summer resident and rare winter resident.

A few Kingfishers are found on the streams in late February but they do not become numerous until a week or two later. Only a few remain as late as the last half of November. During open winters an occasional bird has been known to remain all winter near some favorite fishing hole. During the rather severe winter of 1916-1917, when the smaller streams were at times frozen solid, at least two birds were known to have spent

the entire winter near Independence, one on Mill Creek and one on the Little Blue.

The Kingfisher is a familiar bird along the entire length of the Blue River and excavates its nesting burrows in the high banks in and near Swope Park. It is not often found on the Missouri itself, perhaps because the minnows on which it feeds are hatched and spend their early life in the tributaries.

Order PICI. Woodpeckers, etc.

Family Picidae. Woodpeckers.

Campephilus principalis (Linn.). Ivory-billed Woodpecker.
Former resident; now extinct.

This shy forest bird has long ago disappeared from this locality as well as from the entire state.

Its haunts were in the deep woods of the Missouri bottoms. The species is listed as a former resident on the authority of Judge Guinotte and others.

Dryobates villosus villosus (Linn.). Hairy Woodpecker.
Fairly common resident.

The Hairy Woodpecker seems to be more numerous in winter than in summer. It is perhaps a little wilder than the following species and is not so often seen in the city. It is also more discriminating in its selection of a nesting site, choosing a less accessible place.

It is present throughout the year and may be looked for in any wooded territory. The eggs are laid late in April or May.

Dryobates pubescens medianus (Swainson). Downy Woodpecker.
Common resident.

The Downy is perhaps our commonest woodpecker and is found everywhere about trees during the entire year.

It is a very confiding bird during severe winter weather and will readily come about the house for any scraps of meat or suet that may be offered. It is also a frequenter of weedy patches during winter and loves to rattle among the dead stalks looking for insect larvae and eggs. It is also a great hunter in orchards and is one of the most beneficial of our common birds.

It should be protected at all times and fed during the most severe periods of winter.

The five or six pure white eggs are laid in April or May in a cavity in some dead limb or post. It is a very pugnacious little defender of its home.

SPHYRAPICUS VARIUS VARIUS (Linn.). Yellow-bellied Sapsucker.

Not uncommon migrant and rare winter visitant.

Migration waves of Sapsuckers, when the birds are to be seen everywhere for a day or two in spring, have been very infrequently observed here. It is better known as a straggler between November and late April.

It is to be looked for about any kind of wooded places and in orchards. Single birds have been occasionally found at any time during the winter.

PHLOEOTOMUS PILEATUS ALBIETICOLA (Bangs). Northern Pileated Woodpecker.

Occasional visitant. Former resident.

This once common woodpecker is still occasionally found in the deep woods of the Missouri bottoms. It persisted as a regular breeder there up until the late eighties or early nineties.

Some more recent dates are: April 30, 1897, November 1, 1915 (Tindall), and March 22, 1916 (Bush). Smithson found a nest with five young near Warrensburg on June 15, 1905, and observed a male bird in the same neighborhood on March 2, 1908.

A few specimens have been brought into the city market during recent years by farmers who invariably shoot this magnificent bird on sight.

MELANERPES ERYTHROCEPHALUS (Linn.). Red-headed Woodpecker.

Very common summer resident; occasional winter resident.

The returning Red-heads arrive during the last few days of April and the bulk of the southbound migrants are gone by the last of September. A few are always about during October, November and less often in December, while an occasional single

bird or small troop may brave the rigors of January and February. A flock of six wintered in the timber near Dodson dur- 1913-1914. Three birds were observed all during the winter of 1915-1916 in the neighorbhood of Kentucky Avenue and Independence Road. A lone bird was observed on Brush Creek near Electric Park in December, 1916, and again about the middle of January, 1917. The presence in winter of this bird seems to depend largely on the crop of shingle oak acorns (Quercus imbricaria Michx.).

The removal by the Park Board of all standing dead trees and the partial doing away with telephone poles has caused this desirable bird to become less common within the city than formerly.

CENTURUS CAROLINUS (Linn.). Red-bellied Woodpecker.
Fairly common resident.

The Red-bellied, unlike several of the other woodpeckers, does not venture far into the city but prefers the more densely wooded outlying country. It is to be found most commonly in the timber along the bluffs and in the bottom lands. It is also found in Swope Park and along the upper Blue.

This bird is rather shy and is more often heard than seen. Its croaking note is very similar to that of the Red-head.

Three or four eggs are laid in April or early May.

COLAPTES AURATUS LUTEUS Bangs. Northern Flicker.
Very common resident, abundant in migration.

This ground-feeding woodpecker is one of the most familiar birds of the city lawns. It is not uncommon in winter but by the first few days of April the migrants are here in great abundance. The southward movement is noticeable all through September.

Flickers begin laying early in May, a full clutch being six or seven eggs. They nest freely in the proper kind of nest boxes.

COLAPTES CAFER COLLARIS Vigors. Red-shafted Flicker.
Rare visitant during migration or in winter.

This locality lies just outside or possibly on the extreme edge of this bird's range. The known instances of its occurrence

here seem to be of enough interest and importance to warrant giving them in detail. They are:

1872. Bryant. One specimen taken.
Dec. 29, 1889. Bush. A flock seen, one specimen taken.
Dec. 12, 1893. Tindall.
Nov. 10, 1899. Tindall.
Sept. 20, 1902. Tindall.
Oct. 25, 1902. Tindall. A small flock seen and one specimen taken.
Jan. 4, 1914. Harris. One seen.
Nov. 5, 1915. Tindall. Flock of six seen and one specimen taken.
Nov. 7, 1915. Hoffmann. One seen.
Nov. 13, 1915. Bush. Flock of five seen and one specimen taken.
Jan. 10, 1916. Bush. A small flock seen.
Apr. 16, 1916. Hoffmann. One bird seen.

Students should be on the lookout for this striking bird.

Order MACROCHIRES. Goatsuckers, Swifts, etc.

Suborder **Caprimulgi.** Goatsuckers, etc.

Family CAPRIMULGIDAE. Goatsuckers, etc.

ANTROSTOMUS CAROLINENSIS (Gmelin). Chuck-will's-widow.
Accidental visitant.

On May 3, 1918, at about dusk, a Chuck-will's-widow flew into the yard of Prof. A. E. Shirling, near Swope Park, and sang several times. The bird was not over fifteen feet from the professor, who distinctly saw it and noted its size as it flew off. This is the first and only known instance of the local occurrence of this bird. Its normal range in western Missouri does not extend much further north than from eighty to one hundred miles to the south of Jackson County.

ANTROSTOMUS VOCIFERUS (Wilson).

SETOCHALCIS VOCIFERA VOCIFERA (Wilson). Proposed April, 1917. Whip-poor-will.
Common summer resident.

The Whip-poor-will arrives from the 15th to 19th of April and leaves in October. It lays its two beautifully marked eggs

on the bare ground in dense growths of scrub oak or in second growth timber on burnt over hillsides. Three sets in the Tindall collection were taken on the following dates: May 7, 1901, May 20, 1903, June 12, 1915.

It is numerous about Swope Park and Dodson and along the river bluffs.

PHALAENOPTILUS NUTTALLI NUTTALLI (Audubon). Poor-will.
Formerly a rare summer resident.

Bush reports that the Poor-will formerly nested on the open country near Swope Park and Dodson. He frequently heard the mournful cry of this bird in the neighborhood of Grandview. Efforts to find the Poor-will in this county during the summers of 1916 and 1917 proved unsuccessful, though it may yet be found still occasionally breeding on the prairie regions of southern Jackson County.

CHORDEILES VIRGINIANUS VIRGINIANUS (Gmelin). Nighthawk.
Abundant migrant and fairly common summer resident.

The first Nighthawks arrive usually on the 26th, 27th or 28th of April followed by great numbers of migrants during the next three or four weeks. The southward moving flocks pass through during September and early October.

Like other members of this family the Nighthawk builds no nest but lays its two eggs on the bare ground or rocks or on the flat roofs of the tall buildings in the business district of the city. As a breeder it is found chiefly along the northern boundary of the county but ranges out over the prairie country to feed. It is probable that it may nest along the rocky ledges in the Swope Park district.

CHORDEILES VIRGINIANUS HENRYI Cassin. Western Nighthawk.
Regular but not numerous migrant.

Resting flocks of migrating Nighthawks have often been seen to contain birds of varying degrees of pallidity. Some of the individuals are only slightly lighter in color than the native birds while others are so very decidedly lighter that they can be distinguished as far as the flock is visible. There is very little doubt that these forms are the Western and Sennett subspecies but it would be well to take specimens.

All three of these Nighthawks have been observed in Swope Park.

CHORDEILES VIRGINIANUS SENNETTI Coues. Sennett's Nighthawk.

Regular but not numerous migrant.

See the remarks on the Western Nighthawk.

Suborder **Cypseli.** Swifts.

Family MICROPODIDAE. Swifts.

Subfamily Chaeturinae. Spine-tailed Swifts.

CHAETURA PELAGICA (Linn.). Chimney Swift.

Very common summer resident.

The forerunners of the hosts of migrating Chimney Swifts arrive between the 11th and 18th of April. Some exceptionally early dates are: April 8, 1900, March 20, 1903, March 30, 1913, and March 15, 1913.

The southward moving flocks pass from late in August to early October. During this period the Swifts resort to common roosts and may be seen circling in immense funnel-shaped flocks over large chimneys and about towers, such as several of the public school buildings, the Calvary Baptist Church and the old power-house stack at 8th Street and Woodland.

Suborder **Trochili.** Hummingbirds.

Family TROCHILIDAE. Hummingbirds.

ARCHILOCHUS COLUBRIS (Linn.). Ruby-throated Hummingbird.

Common summer resident.

The early Hummingbirds arrive around April 27th, but are not found in numbers until a week or more later. They leave in October.

The nest, a soft, delicate, cottony cup, decorated with lichens, is one of the wonders of avian architecture and is usually saddled on a small horizontal limb ten to fifty feet from the ground. It is often found in orchards.

Order PASSERES. Perching Birds.

Suborder **Clamatores.** Songless Perching Birds.

Family TYRANNIDAE. Tyrant Flycatchers.

TYRANNUS TYRANNUS (Linn.). Kingbird.
Common summer resident.

The first Kingbirds arrive between the 18th and 26th of April, followed during the next ten days by swarms of migrants. The return flight is noticeable as early as the 29th of August and continues for about three weeks.

This flycatcher is fairly common within the city and is a familiar bird everywhere in the surrounding country.

A favorite roosting place for great numbers during the period of flocking that precedes migration is in the miles of willow bottoms along the Missouri River below the Milwaukee Bridge.

TYRANNUS VERTICALIS Say. Arkansas Kingbird.
Occasional visitant during migration and summer.

An unusual visitation of Arkansas Kingbirds occurred on the Dankers' farm in Holt County during the late summer of 1917 when nine specimens were recorded. Prior to this time there were but two known records for this region: May 31, 1899, and May 9, 1913, both specimens being taken by Dankers. There are but three other known records for the entire state of Missouri.

MYIARCHUS CRINITUS (Linn.). Crested Flycatcher.
Very common summer resident.

The Crested Flycatcher arrives from the 23rd to 28th of April (in the following years it arrived promptly on the 27th of April: 1899, 1900, 1901, 1904, 1916 and 1917). An exceptionally early date for this bird was April 15, 1915. (See table of arrival dates given under the Phoebe). It leaves for the south during the first week or ten days in September.

This noisy bird comes freely into the city to nest in cavities in trees or in bird boxes. It has a very sharp eye for cast snake skins which it usually includes in the nesting material. In the city bits of thin or greasy paper or onion skins are substituted.

The eggs, laid in June, are four to seven in number and beautifully marked with streaks and wavy lines.

It may be looked for in all wooded parts of the county.

SAYORNIS PHOEBE (Latham). Phoebe.
Common summer resident.

The Phoebe arrives during the first half of March, though exceptionally severe weather may delay the vanguard for a week or more. The following arrival dates will show the irregularity of its arrival contrasted with the regularity of the foregoing species.

Sayornis phoebe.	Myiarchus crinitus.
March 3, 1893.	
March 11, 1894.	
March 23, 1895.	April 28, 1895.
March 29, 1896.	April 25, 1896.
March 15, 1897.	April 25, 1897.
March 13, 1898.	April 30, 1898.
March 14, 1899.	April 27, 1899.
March 11, 1900.	April 27, 1900.
March 12, 1901.	April 27, 1901.
March 11, 1902.	April 24, 1902.
March 8, 1903.	April 22, 1903.
March 26, 1904.	April 27, 1904.
March 15, 1907.	
March 7, 1908.	
March 21, 1909.	
March 13, 1910.	
March 18, 1911.	May 3, 1911.
March 30, 1912.	May 1, 1912.
March 30, 1913.	May 3, 1913.
March 13, 1914.	April 23, 1914.
March 8, 1915.	April 15, 1915.
March 12, 1916.	April 27, 1916.
March 14, 1917.	April 27, 1917.

The last southbound Phoebes are seen about the middle of October. The cry of this bird is a familiar note about culverts, bridges, mossy ledges near streams, and farm outbuildings. It does not venture far into the city but is common in the surrounding country.

Its five or six eggs are laid during the latter part of April, usually from the 19th to 27th. A very early date was April 7, 1908 (five eggs).

NUTTALLORNIS BOREALIS (Swainson). Olive-sided Flycatcher.
Rather rare migrant.

A few migrating Olive-sided Flycatchers are present during late May and early June and again in early September. It is more often heard than seen and is to be looked for in the tops of tall, often dead, trees along water courses. It may be readily identified by its loud, wild and distinctive whistle.

MYIOCHANES VIRENS (Linn.). Wood Pewee.
Rather uncommon summer resident.

The Wood Pewee arrives early in May and leaves in late September. It is a woods-loving bird, and is found within the city only in the more secluded and heavily wooded sections, such as Swope Park.

The nest is a very beautiful structure composed of fine materials such as lint and cottony substances. It is saddled onto a limb, usually a dead one, after the fashion of a Hummingbird's or Gnatcatcher's nest. The Wood Pewee begins laying about the first of June.

EMPIDONAX FLAVIVENTRIS (W. M. & S. F. Baird). Yellow-bellied Flycatcher.
Rather rare migrant.

The Yellow-belly may not be as rare during migration as the few records seem to show, since it is a difficult bird to find. It frequents dense undergrowths and thickly grown-up bottom and bluff regions and is usually silent. It is present during the last half of May and early June (six records). There are no autumn records for this county, but a specimen was taken about thirty miles to the west on September 15, 1908, by Bunker (Kansas University Museum).

EMPIDONAX VIRESCENS (Vieillot). Acadian Flycatcher.
Somewhat common summer resident.

The Acadian or Green Crested Flycatcher arrives during the first few days of May and is present until the middle of September.

It is never found outside of thickly wooded places. Its favorite haunts are the wooded ravines of the bluff regions and wherever creeks flow through timber. Two or three pairs nest regularly in Shilo Hollow, near Swope Park, and several are always to be found during summer in Hazel Dell, a secluded creek bot-

tom above the Lake of the Woods. There are probably many such places in the central and eastern parts of the county where this and other shade-loving species are to be found.

The eggs are laid from the last few days in May to the middle of June.

Besides the song (wick-y-up) and the sharp call note, the bird often utters a humming or murmuring note which seems to be known to but few observers.

EMPIDONAX TRAILLI TRAILLI (Audubon). Traill's Flycatcher.
Fairly common migrant and rare summer resident.

The Traill's Flycatcher arrives early in May and leaves during September. Its favorite haunts are in creek or river timber, though it is found also in the parks and about the outskirts of the city in orchards and wooded tracts. Thickets and open woods also attract it, and a few are always to be found in late May about the extensively planted estates in the neighborhood of 52nd and Oak. The best time to observe this flycatcher is during the last two weeks of May when the bulk of the northbound migrants are present.

There are no records available of the Traill's Flycatcher breeding in Jackson County, but, judging from its distribution as a summer resident in Missouri, it probably will be found nesting in thickets about sloughs and along river courses in this vicinity.

EMPIDONAX TRAILLI ALNORUM Brewster. Alder Flycatcher.
Rare migrant.

This subspecies has not yet been satisfactorily worked out for this county owing to lack of material, only one specimen having been taken. It has been taken in enough numbers both to the east and west to warrant the belief that there can be little doubt as to its regular occurrence here. The difference between the two forms is one of size only and a series of local specimens will have to be studied before much is known.

EMPIDONAX MINIMUS (W. H. & S. F. Baird). Least Flycatcher.
Common migrant and very rare summer resident.

The Least Flycatcher arrives from April 30th to May 6th and leaves during September.

The only authentic record of the Chebec having nested in the State of Missouri is furnished by Tindall, who took a set of

three eggs in this county on June 16, 1891. This same collector has taken specimens of the bird here during the nesting season, but only this one nest has been found.

Suborder **Oscines.** Song Birds.

Family Alaudidae. Larks.

Otocoris alpestris alpestris (Linn.). Horned Lark.
Regular but not numerous winter visitant.

A few flocks of Horned Larks visit this vicinity during winter, scattering over the prairie regions and the sandy bottom lands. They are usually in the company of *praticola* and may be distinguished by their larger size and darker color. A few specimens have been taken in this vicinity.

Otocoris alpestris praticola Henshaw. Prairie Horned Lark.
Common resident and very common migrant.

The Prairie Horned Lark is found throughout the year, either in the open country of the bottom lands or more numerously in the prairie regions. It is the commonest bird in the early wheat fields. Its song may be heard on mild days in January. It is an early breeder, the eggs having been found as early as March 20th, and the nest is often covered with snow.

[Otocoris alpestris hoyti Bishop. Hoyt's Horned Lark.]
Probable winter visitant.

This large pallid form has not yet been taken in the county, but may occasionally occur here during winter. Students should be on the lookout for it.

Family Corvidae. Crows, Jays, Magpies, etc.

Subfamily Garrulinae. Magpies and Jays.

Pica pica hudsonia (Sabine). Magpie.
Formerly a very rare winter visitant.

There is a specimen of this bird in the collection of Dr. Cunnington of Tarkio, Missouri, taken in the Missouri River bottoms of Holt County late in the fall of 1913. One specimen has been taken near Lawrence (Snow). Four birds were observed in Saline County (two counties to the east, on the river) by L. W. Corder (Widmann).

The Magpie has become rare of late years in its habitat in the northwest, but an occasional straggler may still find its way down the Missouri Valley during severe winters.

CYANOCITTA CRISTATA CRISTATA (Linn.). Blue Jay.
Very common summer resident; not uncommon winter resident.

Flocks of migrating Jays move through this district on their northward flight from the 15th of April to the 5th of May and on the southward journey during the first half of October. A route much used by these migrants is along the Missouri bluffs and lowlands.

During some winters Jays are to be found in numbers, even in the city, but during others are very scarce. During the rather severe winter of 1916-1917, few Jays were to be found anywhere but in Sowpe Park.

Jays nest early in May and more than one brood is raised.

Subfamily Corvinae. Crows.

CORVUS CORAX SINUATUS Wagler. Raven.
Former resident.

In the late seventies the Raven nested in the rocky bluffs overlooking the Missouri River in this county. It was formerly common, but has become extinct in this part of the country. A few are still said to breed in this state in the Ozarks.

CORVUS BRACHYRHYNCHOS BRACHYRHYNCHOS Brehm. Crow.
Common resident and abundant migrant.

Crows are to be found everywhere in the county, but are most abundant in the Missouri Valley, where they occur in the greatest numbers in winter. There is always a large winter roost somewhere in the vicinity of the Big Eddy or the mouth of Sugar Creek or the Blue River, usually on the Clay County side. Great numbers nest in April in the bottom timber as well as in Swope Park and other heavily wooded places over the entire county.

NUCIFRAGA COLUMBIANA (Wilson). Clarke's Nutcracker.
Accidental visitant.

On October 28, 1894, a specimen of this bird was taken near the city by Bryant. The bird was far off its range and is to be

considered as purely an accidental visitant. There are but three or four other records for surrounding states.

Family Icteridae. Blackbirds, Orioles, etc.

Dolichonyx oryzivorus (Linn.). Bobolink.

Rather rare migrant.

Bobolinks are occasionally present in small flocks during the first half of May and again during September. They sometimes occur on the prairie regions, but more commonly in the Missouri Valley. They are sometimes heard migrating at night when they may be readily distinguished by their characteristic "pink." They are usually in song on the northward flight, but on the return are silent save for the "pink, pink."

Molothrus ater ater (Boddaert). Cowbird.

Very common summer resident; occasional winter resident.

Though an occasional Cowbird is seen during the winter months, usually in the company of blackbirds, the earliest migrants do not arrive until the first or second week in March and the bulk of the flight not until a week or two later. The autumn migration is at its height during late September and early October.

The Cowbird is generally distributed over the entire county and is fairly common within the city. Whenever the eggs of this parasitic species are found in the nests of more desirable song birds they should be destroyed, as the young are a menace to the young of the host species.

Xanthocephalus xanthocephalus (Bonaparte). Yellow-headed Blackbird.

Not very common migrant and rare summer resident.

The Yellow-headed Blackbird arrives during the second week of April and is rarely seen after October. It is to be found on the prairie regions during migration, but occurs in greater numbers in the Missouri bottom lands and on the farming country near the bluffs. It is probably not as common as formerly, and does not breed as freely in this county. It nests in colonies about the river lakes in several of the up-river counties, as at Bean Lake and at Armour.

AGELAIUS PHOENICEUS PHOENICEUS (Linn.).

AGELAIUS PHOENICEUS PREDATORIUS (Wilson). Proposed April, 1917.

Common summer resident; very abundant migrant; irregular, sometimes not uncommon winter resident.

DISTRIBUTION OF A. P. PREDATORIUS

Continuous line encloses breeding range.
Broken line shows extent of winter range.

Immense hordes of Red-wings migrate up and down the lowlands bordering the Missouri River. Flocks numbering untold thousands are present during spring and autumn, and occasional birds are found among the wintering throngs of Thick-bills and Northern Red-wings. The earliest flocks, composed almost entirely of males, begin to arrive during the first few days of March while the wintering birds are still present in some numbers. In favorable winters this northward movement may start as early as the middle of February. Not until the first of May have the last flocks of late females passed, leaving only the breeding birds present. These summer residents may be looked for in the bottom lands or on the uplands about swampy places, or where there are reeds, rushes, high grass or cat-tails near water. They start nesting about the middle of May. Flocking begins as early as the middle of July when the birds begin to

use common roosts in the bottoms, scattering over the entire county at early dawn to feed. The southward movement commences early in October and continues until well into December.

AGELAIUS PHOENICEUS FORTIS Ridgway. Thick-billed Red-wing.
Irregular, sometimes very abundant, migrant and winter resident.

DISTRIBUTION OF A. P. FORTIS

Continuous line encloses breeding range.
Broken line shows extent of winter range.

The Red-wings wintering in this vicinity were long suspected of belonging to this very noticeably larger subspecies, but prior to the winter of 1916-1917 no systematic investigation had ever been made in western Missouri to establish their subspecific status. This rather severe winter proved to be a favorable one for this study, as the birds were present in unusual abundance. A large series of specimens was taken over a wide area and covering the entire period of their sojourn.

They began arriving in small numbers during the middle of November and continued coming in increasing numbers until during the intense cold periods of late December and January there were countless thousands resorting to common roosts in the timbered bottoms along the Missouri River. In the early mornings when the birds scattered to feed, great flocks flew over

the city to their feeding grounds on the prairie regions many miles to the south and west. It is estimated that some of the flocks covered daily from thirty to fifty miles on these journeys.

As early as the middle of February much singing and mating activity was noted among the flocks and the ranks were beginning to thin. On March 2nd the last specimens of *fortis* were taken (from large masses of birds), and by March 5th this form had been almost entirely replaced by equally large flocks of *predatorius*. Several specimens taken on this date from large flocks proved to be referable to the breeding form. A difference was also noted in the music of the flocks, as the notes of *fortis* are softer, more melodious and less grating than those of *predatorius*.

These northwestern birds do not seem to have passed down the Missouri Valley (east) beyond this point, as only an occasional bird was seen in the nearby down-river counties.

The stomachs of ten males and one female taken from one flock on January 17th contained large quantities of the seeds of sorghum (*Sorghum* sp.) and knotweed (*Polygonum lapathifolium* L.).

Very few Northern Red-wings (*A. p. arctolegus*) were present during this hard winter, though during the equally severe winter of 1917-1918 this form greatly predominated.

AGELAIUS PHOENICEUS ARCTOLEGUS Oberholser. Northern Red-wing.

Abundant migrant; irregular, sometimes very common winter resident.

Large moving masses of this recently described subspecies are not readily distinguishable in the field from the Thick-bill, and may even be mistaken for the breeding form unless seen at close range or in mixed flocks. Not enough material has yet been secured to give, with certainty the dates of its arrival from the north in the fall or the limits in time of its passage through here on the return in spring. Great hordes pass during both seasons and varying numbers are present during the entire winter. All three forms intermingle here in winter, as, on at least one occasion, specimens of all three have been taken from the same flock.

The accompanying map shows that this region lies fairly in the center of the migratory path of this race, and on the edge of its winter range.

DISTRIBUTION OF A. P. ARCTOLEGUS

Continuous line encloses breeding range.
Broken line indicates extent of winter range.

STURNELLA MAGNA MAGNA (Linn.). Meadowlark.

Common summer resident and very common migrant; rather rare winter resident.

Small troops of returning migrants begin to arrive from the 25th to the last of February, but are not numerous until about the middle of March. The southbound migration wave passes in October. Only a few birds, sometimes none, are to be found here in winter.

The Meadowlark is generally distributed over the entire county and breeds everywhere in favorable open grassy places, even coming into the outskirts of the city to nest. It begins laying early in May.

STURNELLA NEGLECTA Audubon. Western Meadowlark.

Regular but uncommon summer resident.

Typical examples of the Western Meadowlark are found here and there on the prairie regions of the county. Several pairs nest regularly in the Country Club district and about Waldo.

Breeding birds have been seen near Dodson, Grandview and further west and south. They formerly nested in the neighborhood of Swope Park, but none have visited that district in several years with the exception of one pair that raised a brood near 41st and Benton Boulevard during the summer of 1917.

Occasionally Meadowlark songs are heard that are intermediate between the two forms.

ICTERUS SPURIUS (Linn.). Orchard Oriole.
Common summer resident.

The first Orchard Orioles may be looked for between the 25th and 30th of April. They seldom fail to arrive some time during these five days. The only two known earlier dates are April 22, 1897 (Tindall), and April 19, 1909 (Smithson).

Great numbers of migrants are often seen resting in the willow thickets in the Missouri bottoms during the first eight or ten days of May. They start south late in August and after about ten days only stragglers are seen.

The Orchard Oriole may be found in all parts of the county and nests freely within the city in favorable districts. Its four to six eggs are laid in late May or early June.

ICTERUS GALBULA (Linn.). Baltimore Oriole.
Common summer resident.

The Baltimore Oriole usually arrives a few days earlier than the Orchard Oriole and is perhaps more numerous in the city, at least. Its wonderful nest is suspended from the overhanging extremities of the limbs of shade trees, preferably elms, in all residence districts.

It is about equally common in the outlying country and often builds there in sycamore and cottonwood trees. The four or five eggs are laid in May.

During the period of moult in late July and early August the Orioles are silent and secretive and are seldom seen. Prior to their departure for the south they have another period of song.

EUPHAGUS CAROLINUS (Muller). Rusty Blackbird.
Not uncommon migrant; rare winter resident.

The first Rusty Blackbirds arrive on their journey to the northern breeding grounds sometimes as early as the third week

in February, but more often during the second or third week in March. A flock numbering over two thousand birds was seen on February 21, 1916. By April 15th only stragglers are seen. The southward flight passes through in October, tapering off into November. A few birds may be found here during mild and open winters.

EUPHAGUS CYANOCEPHALUS (Wagler). Brewer's Blackbird.
Rare migrant.

Three sight records of this bird constitute the only known evidence of its occurrence here. Since the Brewer's Blackbird may be easily mistaken in the field for the Bronzed Grackle, it may often go unnoticed in flocks of the latter. It has been observed on the prairie regions of Jackson County once, and in the bottoms twice, but no specimens have been taken. It is very desirable to obtain more data relative to this species, as well as more satisfactory proof of its local occurrence. Its migration through this region is probably coincident with that of the Rusty Blackbird.

QUISCALUS QUISCULA AENEUS Ridgway. Bronzed Grackle.
Common summer resident.

A few hardy and impatient Grackles sometimes arrive late in February, but it is usually mid-March before many are present. The bulk of the flight arrives still later, during late March and the first week in April. The return migration occupies October and early November and a few may be present until well into December.

Grackles are very common within the city, where their habit of occupying common roosts in shade trees, usually over sidewalks, makes them a great nuisance. These roosts are not easily broken up and many residents of the south side of the city have had trying experiences in ridding their neighborhoods of this pest. The most effectual method is to shoot Roman-candles into the trees after the birds have settled for the night.

Family FRINGILLIDAE. Finches, Sparrows, etc.

HESPERIPHONA VESPERTINA VESPERTINA (W. Cooper). Evening Grosbeak.
Very rare and irregular winter visitant.

Only during occasional winters is this district invaded by

Evening Grosbeaks. The last visitation occurred in 1911, when several flocks of from two to twenty-five were seen at widely separated points in this vicinity. The first were noted on January 23rd, after which they were present until the 6th of May. None have been seen since that year.

CARPODACUS PURPUREUS PURPUREUS (Gmelin). Purple Finch.
Rather common migrant; not uncommon winter resident.

Flocks of migrating Purple Finches are likely to be seen any time between February and late April and again during October and November. Small groups of wintering birds have been seen in December and January in all parts of the county, notably in such places as Swope Park, the Country Club district, the upper Blue Valley and along the Missouri bluff regions.

LOXIA CURVIROSTRA MINOR (Brehm). Crossbill.
Rather irregular but sometimes not uncommon winter resident.

Only an occasional winter passes without at least a few Crossbills being seen. During rare winters thousands (Bush) are present and are to be found wherever there are suitable feeding places. They are attracted by sunflower patches, orchards where fruit has been left hanging, pine trees and weed patches. They have also been seen tearing to pieces the fruit of the Osage orange. Crossbills may be looked for between late October and early May.

LOXIA LEUCOPTERA Gmelin. White-winged Crossbill.
Very rare winter visitant.

There is only one authentic record of the occurrence of this Crossbill in this vicinity, though it probably occurs occasionally in the company of the other species.

Students should be on the lookout for this bird, as we are well within its winter range.

ACANTHIS LINARIA LINARIA (Linn.). Redpoll.
Very rare winter visitant.

Only three records are known of the occurrence of the Redpoll here; February 21, 1882; January 14, 1906, and February 13, 1916.

ASTRAGALINUS TRISTIS TRISTIS (Linn.). Goldfinch.
Very common summer resident; not uncommon winter resident.

The Wild Canary or Thistle Bird is most abundant here during migration, from the last week in April to the middle of May and during October. They are always present in winter in varying abundance and are generally distributed over the entire county.

They nest rather late, as is shown by the following data from the Tindall collection:—August 21, 1891, four eggs; August 21, 1891, six eggs; June 30, 1895, three eggs; September 7, 1902, five eggs.

The male Goldfinch presents a good example of the plumage change in birds whose summer and winter coats are entirely different. Individuals may be seen during different seasons of the year in all phases of their changing color.

SPINUS PINUS (Wilson). Pine Siskin.
Not uncommon migrant and winter visitant.

A large per cent of the flocks of wintering Goldfinches have Siskins scattered among them. They are easily distinguished by their notes and by the streaked plumage.

Flocks of migrating Siskins numbering hundreds have been seen between the middle of March (March 11, 1907) and the last of April, and from the last week of October to middle or late November.

The presence of this bird in winter is often overlooked and every group of Goldfinches and wintering Sparrows should be closely scrutinized to find it.

PASSER DOMESTICUS (Linn.).
PASSER HOSTILIS Kleinschmidt. Proposed October, 1916. English Sparrow.
Very abundant resident.

This alien species has established itself not only about the centers of civilization but has overflowed into the surrounding wild places and has proven itself equally successful in leading a feral existence. It is found in the wildest and most inaccessible tangles of the Missouri bottom jungles, and nests in vines in the timber along the water courses and in deserted woodpecker holes as well as natural cavities. Under favorable con-

ditions as many as four broods are brought forth in a single year.

It is probably a fact that the balance of nature will be adjusted in time by this sparrow at the expense of our more desirable native forms, though this may be partially compensated for by an increase in the smaller predatory birds, but as far as the writer has been able to observe no appreciable harm has as yet been done—at least in this vicinity.

Mr. Widmann writes that the zenith of this bird's abundance has been reached in St. Louis several years ago, and is of the opinion that the late severe winters and lack of suitable nesting sites may have caused this standstill or decrease. This condition has also been noted in Kansas City, though coincident with the decrease within the city there has been a most decided increase in the surrounding rural districts.

PLECTROPHENAX NIVALIS NIVALIS (Linn.). Snow Bunting.
Very rare and irregular winter visitant.

This wanderer from the north reaches this vicinity only during the most severe winters. On January 29, 1889, a flock of several dozen of these beautiful birds was observed at Courtney by Bush. There is a specimen in the Tindall collection taken near Independence on November 8, 1892.

CALCARIUS LAPPONICUS LAPPONICUS (Linn.). Lapland Longspur.
Regular and not uncommon winter resident, sometimes very common.

Lapland Longspurs are to be looked for on the prairie regions of the county between the first week in November (November 5, 1913, earliest) and the middle of March (March 18, 1917, latest).

Small flocks are commonly met with between the Country Club and the upper Blue Valley, but very seldom visit the Missouri Valley.

During some winters, flocks of hundreds are present, and during migration thousands are heard passing over at night.

CALCARIUS PICTUS (Swainson). Smith's Longspur.
Very rare and irregular winter visitant.

The one local record for this bird is May 1, 1905, when three specimens were taken. It is reported as a common winter so-

journer in Kansas, is a regular migrant in Illinois and winters regularly in Arkansas. It therefore should be looked for in this vicinity.

CALCARIUS ORNATUS (J. K. Townsend). Chestnut-collared Longspur.
Rather rare winter visitant.

This bird has been noted during the winter months on the prairie regions of this county and also in the neighborhood of Warrensburg (Scott). It is occasionally seen in the company of Lapland Longspurs, from which it is readily distinguishable. It is not so easily distinguished from the Smith's Longspur.

[RHYNCHOPHANES MCCOWNI (Lawrence). McCown's Longspur.]
Probable migrant and winter resident.

This Longspur can scarcely be distinguished in the field from the Chestnut-collared. Though there can be little doubt of its more or less regular occurrence here, as specimens have been taken on all sides of us, there is no positive evidence yet at hand that it visits Jackson County. The species should be looked for.

POOECETES GRAMINEUS GRAMINEUS (Gmelin). Vesper Sparrow.
Fairly common migrant; very rare summer resident.

The Vesper Sparrow arrives from the south about the first of April (March 31, 1895; March 23, 1916, earliest) and is no longer present after the 20th to 25th of the month. It is here again during October and has never been seen later than November 5th. Though there are two or three summer records, it is not considered a regular breeder in this vicinity.

The Vesper Sparrow is found in open fields or along grassy hillsides covered with open groves. It is about intermediate in its choice of cover between the Savannah Sparrow of the open prairie and the Song Sparrow which never moves far from thick shelter. Some very good sparrow haunts are to be found in and about Swope Park.

PASSERCULUS SANDWICHENSIS SAVANNA (Wilson). Savannah Sparrow.
Common migrant and very rare and irregular summer resident.

The Savannah Sparrow arrives during the middle of March and is common until the third week in April. There are a few

known instances of its remaining during the entire summer. The nest has never been found in the county. The first southbound migrants have been noted as early as September 26th and the species is common again during the first three weeks of October. All are gone by the end of the first week in November.

Savannah Sparrows may be found anywhere in the county in weedy fields, open bottom lands and on the prairies.

PASSERCULUS SANDWICHENSIS ALAUDINUS Bonaparte. Western Savannah Sparrow.

Migrant, probably not rare.

Three specimens of this subspecies taken by Teachenor near Lawrence, and one taken by Tindall near Independence, constitute the only available records on which to base an estimate of the comparative abundance here of the two forms of the Savannah Sparrow. That the western form is a regular migrant through Jackson County, there can be little doubt, since it has been frequently taken east of here, and is considered common about Lawrence.

AMMODRAMUS BAIRDI (Audubon). Baird's Sparrow.

Very uncommon migrant.

But two known specimens of Baird's Sparrow have been taken in this vicinity (Wilson, Buchanan County), though it may often occur in the company of other migrating sparrows, especially in the large flocks to be found in the Missouri bottoms. This district lies within the migratory path of this sparrow.

AMMODRAMUS SAVANNARUM AUSTRALIS Maynard. Grasshopper Sparrow.

Very common migrant; irregular, sometimes not uncommon summer resident.

The Grasshopper Sparrow arrives about April 25th, and after the middle of May only breeding birds are present. The last have left by early October. In some years none seem to remain to breed, but in others, as during the summer of 1918, many pairs may be found in suitable localities.

This sparrow is to be found chiefly on the prairie regions in high grass and in clover fields. It is a common visitor to the

meadow in Swope Park, where it sometimes breeds, and along the Missouri Pacific right-of-way in the upper Blue Valley, where there is much red clover.

The weak, high-pitched, insect-like notes of this little skulker more often attract attention to it than an actual sight of the bird.

AMMODRAMUS SAVANNARUM BIMACULATUS Swainson. Western Grasshopper Sparrow.

Rare migrant.

The study of a more extensive series of Grasshopper Sparrow specimens than is yet available will be necessary in order to determine the local abundance of the western form. Only one specimen (Teachenor, Lawrence, Oct. 14, '16) has been examined. Further collecting may establish this subspecies as a regular migrant in this region.

PASSERHERBULUS HENSLOWI HENSLOWI (Audubon). Henslow's Sparrow.

Not uncommon migrant; rather uncommon summer resident.

The Henslow's Sparrow arrives usually during early April (March 28, 1916, earliest) and leaves during October. It nests about marshy places and wet meadows and in damp grassy places. It has been frequently observed in the alfalfa field in Swope Park, on the Armour stock farm, about Lake City and has been found nesting near Independence. It is one of the runners in the grass that may be easily overlooked.

PASSERHERBULUS LECONTEI (Audubon). Leconte's Sparrow.

Common migrant.

The first movement of Leconte's Sparrows into the county is usually noticeable in late February (Feb. 25, 1916; Feb. 25, 1917), but they are not numerous until two weeks later. By the 15th to 20th of April they are gone, not to be seen again until late September. They remain until well into December (Dec. 19, 1896, latest).

These little sparrows are found on the high grassy prairies as well as in the open grassy bottom lands. They are not so easily overlooked as some of their more skulking kin, though they are great hiders and runners through the grass.

CHONDESTES GRAMMACUS GRAMMACUS (Say). Lark Sparrow.
Fairly common summer resident.

The Lark Finch may be expected from the 19th to 28th of April (April 10, 1892, earliest), remaining until late September. It is generally distributed over the entire county near the ledges, or barrens above the streams, where the soil is thin and there are small scattered trees. It may be looked for on the farming country adjacent to the bluff regions and in the upper Blue Valley. It is rather rare in Swope Park, though one pair nested on the rifle range in June, 1917.

The Lark Sparrow is a ground nester and lays its eggs late in May. It is a beautiful songster and a conspicuously marked bird and may not be easily overlooked.

ZONOTRICHIA QUERULA (Nuttall). Harris's Sparrow.
Very common migrant; fairly common winter resident.

So far as the writer is aware, the district embraced in this list has given to science but two birds; namely, the Harris's Sparrow and the Bell's Vireo. Harris's Sparrow may properly be called Jackson County's own bird, since it was discovered here, very possibly within the present corporate limits of Kansas City itself. In late April, 1834, Thomas Nuttall, who with Townsend was making a transcontinental journey in the interest of science, discovered, "a few miles west of Independence," on the road to Westport, a new bird which he named the Mourning Finch. Not until 1840, when Volume 1 of the second edition of his "Manual of the Birds of the United States and Canada" was published, did he describe the finch and give it its systematic name. The fact of a later vernacular name becoming current is traceable to an oversight of Audubon, who, not knowing of Nuttall's discovery, thought he had found a new bird near Leavenworth on his memorable trip up the Missouri River in 1843. He named the bird in honor of his much esteemed friend and companion on the trip, Edward Harris, which name has been recognized by the American Ornithologists' Union and thus made permanent.

The Harris's Sparrow makes its first appearance here late in the first week of October and is present in varying abundance until late in November, after which only the wintering birds are to be found. If the winter be exceptionally severe, as in

1916-17 and 1917-18, only a few hardy birds remain to find shelter in the dense cover of the Missouri bottom undergrowth. During open and mild winters a few may be found in the hedges and weed patches of the prairie country.

The northward movement begins late in February, but is not marked by the characteristic waves, when great numbers are here today and gone tomorrow, until three or four weeks later. The Harris's Sparrow usually disappears by the first of May, though during late seasons it may remain until the second or third week (May 17, 1916; May 11, 1913, common).

The notes of this handsome sparrow are querulous and pitched in a minor key and though very similar to those of their traveling companions, the White-throats, are readily distinguished from them by the absence of a well-marked form.

ZONOTRICHIA LEUCOPHRYS LEUCOPHRYS (J. R. Forster). White-crowned Sparrow.

Common migrant; not uncommon winter resident.

The first White-crowned Sparrows come down from the north early in October and are present in numbers until the first or second week in November, after which only a few scattered wintering flocks remain. They are again numerous from late March or early April until the first week in May (May 14, 1916, latest). Their haunts are the same as those of the Harris's Sparrow.

ZONOTRICHIA LEUCOPHRYS GAMBELI (Nuttall). Gambel's Sparrow.

Rather rare migrant and winter resident.

A few scattered flocks of this subspecies are to be found on the prairies of western Jackson County during winter, being more numerous in open winters.

To Mr. Dix Teachenor belongs the credit of discovering the fact that these prairie birds are *gambeli* and not *leucophrys* as supposed. Specimens were taken in the region southwest of the Country Club on February 25, 1917.

ZONOTRICHIA ALBICOLLIS (Gmelin). White-throated Sparrow.

Very common migrant.

The White-throated Sparrow arrives from the south early in April (March 28, 1898; March 25, 1905; March 23, 1907, earliest

dates) and is present until the middle of May, being most abundant about the third week in April. It is present again during October and is usually gone before the first of November. The only winter record is January 17, 1904, when a flock of fifty was seen by Smithson in the adjoining county.

This sparrow is usually found with other large Fringillidae and may be looked for in all parts of the county in suitable open districts, along hedges and brushy ravines, weedy fields, roadside tangles and about the edges of timber. It is plentiful in the Swope Park neighborhood and in the Missouri bottoms.

Spizella monticola monticola (Gmelin). Tree Sparrow.
Abundant winter resident.

The first Tree Sparrows arrive from their northern breeding grounds from the 13th to 21st of October, but are not numerous until well into November. From then on until early March they are present in great numbers throughout the county. After the first few days in April they are no longer present (April 15, 1906; April 9, 1917, latest).

This species and the Junco are the commonest winter birds and are usually found together. They are abundant in the outskirts of the city during winter.

Spizella monticola ochracea Brewster. Western Tree Sparrow.
Winter visitant, probably fairly common.

There are nine specimens of the Western Tree Sparrow in the Teachenor series which testify to its regular occurrence in the neighborhood of Lawrence. A large enough series of Tree Sparrow skins taken in Jackson County has not yet been assembled to show in what proportion the two forms occur in the immediate neighborhood of Kansas City.

Spizella passerina passerina (Bechstein). Chipping Sparrow.
Very common summer resident.

The Migrating Chipping Sparrows arrive from March 17th (earliest) to the 30th, usually about the 20th. The local birds take up their breeding stations during the first week in April and announce their presence about the parks and boulevards by

their dry, monotonous, high-pitched song. The four or five eggs are laid in the horsehair nest during the latter part of April.

They leave for the south in October and are seldom seen late in the month (November 5, 1916, only November record).

SPIZELLA PALLIDA (Swainson). Clay-colored Sparrow.
Not uncommon migrant.

This sparrow is present from the middle of April to the end of the second week in May (May 17, 1916, latest) and again during October. It does not seem to migrate in very large flocks and, though easily distinguished in the field, it is not a conspicuous bird and may go unnoticed, unless one is familiar with its hoarse, wheezy song.

It is found on the prairie regions, about open farming country, and in the bottom lands. It has been noted in the Swope Park and Country Club neighborhoods and is a regular visitor to the Atherton and Courtney districts.

SPIZELLA PUSILLA PUSILLA (Wilson). Field Sparrow.
Very common summer resident and occasional winter resident.

The Field Sparrow arrives in the first week of March, though a few impatient males are heard singing sometimes as early as the 15th of February. It becomes common by the third week of March. During the last half of October and November the bulk of the flight passes south. A few are to be seen in December (December 25, 1910; December 17, 1916) and a very small number probably remain all winter. They nest in early May, on the ground or in low bushes.

Field Sparrows inhabit open places near timber, particularly where there is an undergrowth of buckberry (*Symphoricarpus orbiculatus* Moench). They are very common about Swope Park.

SPIZELLA PUSILLA ARENACEA Chadbourne. Western Field Sparrow.
Migrant, probably not rare.

The Field Sparrows of this region present a perplexing problem to the writer. A dozen or more skins that have been examined are certainly not typical *pusilla,* nor do they exhibit all the characters that mark *arenacea,* though they are much closer,

in fact, nearly identical with, the latter. The only eastern specimen available for comparison—a skin from Massachusetts—shows much brighter coloration on the back, no indication of a grayish median stripe on the pileum, and a much shorter tail. Five local specimens taken in the fall (October) are decidedly paler in color and have the characteristic pileum of the western form. The tails and wings also average longer, and, though the ventral characters do not exactly coincide with Ridgway's description, the five specimens are so close to *arenacea* that they may be with little doubt referred to that subspecies.

Whether an intermediate form breeds here (as is suspected) will be known as soon as a series of summer specimens can be studied.

JUNCO AIKENI Ridgway. White-winged Junco.
Very rare winter visitant.

This Junco has been seen a few times during severe winters by Bush in the neighborhood of Courtney. It was also observed by Smithson near Warrensburg on March 21, 1904. It probably occurs here only during occasional and very severe winters. A specimen was taken by Mr. Dix Teachenor near Lawrence on October 24, 1912.

JUNCO HYEMALIS HYEMALIS (Linn.). Slate-colored Junco.
Abundant winter resident.

Early in the second week of October the first Snowbirds are usually seen (October 5, 1901; October 7, 1917, earliest) and a week or ten days later hordes of migrants are present. Great numbers are to be found in all suitable localities over the entire county during winter.

The northward movement begins late in February and by the 10th to 15th of April only stragglers are present (April 23, 1907; April 25, 1915; April 22, 1916, latest dates).

This is our most familiar winter bird and may be found in abundance within the city.

JUNCO HYEMALIS CONNECTENS Coues. Shufeldt's Junco.
Migrant and winter visitant.

A large series of Juncos taken in this district by several collectors and assembled for study has yielded several specimens closely, if not quite, approaching this as well as the following

subspecies. Typical specimens of this race have been taken near Lawrence by Teachenor and others.

JUNCO HYEMALIS MONTANUS Ridgway. Montana Junco.
Migrant and winter visitant.

The remarks on the preceding subspecies are equally applicable to the Montana race. The winter range of this form extends east to the Mississippi River, and, as may be expected, the Montana Junco is occasionally found in Jackson County. At least four specimens are at hand which in the writer's opinion are referable to *montanus*. The comparative abundance of the Juncos will, however, be an open question until more material can be studied.

MELOSPIZA MELODIA MELODIA (Wilson). Song Sparrow.
Very common migrant and fairly common winter resident; very rare summer resident.

The spring movement of Song Sparrows begins early in March and migrants are abundant for the next three weeks. By the last few days of April or the first three or four days of May no more are to be seen save an occasional nesting pair. The first returning migrants are usually seen from the 5th to 10th of October and the bulk of the flight passes during the next three or four weeks.

The wintering birds are most numerous in the thick shelter of the Missouri bottoms but may be found in small flocks on the uplands as well. They are rather common in the Swope Park district and on up the Blue Valley where food and thick shelter are to be had during the most severe winters.

Bush has occasionally found Song Sparrows nesting in the Courtney district.

MELOSPIZA LINCOLNI LINCOLNI (Audubon). Lincoln's Sparrow.
Fairly common migrant and rare winter resident.

The Lincoln's Sparrow arrives from the 13th to the 23rd of April (March 28, 1916, earliest migrant) and is present until between the 5th and 8th of May (May 19, 1916, latest). The first fall migrants are noticed about the middle of October and numbers are present until the second week in November. A few are always seen in December and there are a half dozen January records.

They seem to occur most commonly in the Missouri bottoms and bluff regions, but are found in suitable sparrow territory over the entire county.

The beautiful though rather subdued song of this sparrow is regularly heard in late April and early May, and occasionally in the fall (October 14, 1917).

MELOSPIZA GEORGIANA (Latham). Swamp Sparrow.
Common migrant and not uncommon winter resident.

The first northbound Swamp Sparrows arrive early in March though during mild seasons they may come as early as the middle of February. They are present until late in April and the last are seen during the first week in May (May 9, 1914, May 9, 1915, latest). The autumn migrants are present from the middle of October until the first or second week in November, after which only the scattered winter residents are to be found.

Like the Lincoln's Sparrow this bird seems to like best the bottoms and bluffs along the river, especially in winter, where there is to be found plenty of food and shelter in the grassy sloughs and deep tangles of underbrush. In less numbers they are also found on the prairie regions in winter, about hedges, thickets, wooded ravines, weed patches and brushy creek bottoms.

PASSERELLA ILIACA ILIACA (Merrem). Fox Sparrow.
Very common migrant and fairly common winter resident.

During open and mild winters when the Fox Sparrow is common, it is difficult to say just when the migrants arrive, though they are particularly numerous all during March. The few April records are for stragglers and are all in the first half of the month. The first fall migrants arrive late in September and become common early in October, the bulk passing during the first three weeks. After the first week in November only the wintering birds are left. The Fox Sparrow may be said to be an irregular winter resident, since it is very numerous in all parts of the county during some winters and during others only a few scattered birds are to be found in the thickest cover of the deep sheltered bottom lands.

During the migration periods they are found everywhere in the open country but the largest flocks follow the bluffs and bottoms along the Missouri River.

PIPILO ERYTHROPHTHALMUS ERYTHROPHTHALMUS (Linn.). Towhee.

Common summer resident and abundant migrant; irregular winter resident.

Not many days before or after the 15th of March the returning Towhees announce their presence from every thicket and wooded ravine and hillside. For about three weeks the woods are full of singing migrants. At this time they are to be found even along the streets and boulevards of the city. Nesting begins late in April and early May. The southward movement is noticeable early in October and the birds present in November will remain all winter unless driven further south by unusual cold. These wintering birds are few even in mild winters.

Towhees are common over the entire county in suitable localities and may be found in the cemeteries, parks and suburbs.

PIPILO MACULATUS ARCTICUS (Swainson). Arctic Towhee.

Very rare winter visitant.

Bush states that he has observed the Arctic Towhee at rare intervals near Courtney during severe winters and that specimens have been taken. Bunker gives it as rare in eastern Kansas during winter.

CARDINALIS CARDINALIS CARDINALIS (Linnaeus). Cardinal.

Very common resident.

Some question exists as to the status of our Cardinal. Ridgway states (Bull. 50, U. S. N. M., Birds of North & Middle Amr., part 1, p. 637) that it is very uncertain how far south along the eastern border of the plains this form (*C. c. cardinalis*), or how far north the Texan form (*C. c. canicaudus* —Gray-tailed Cardinal) extends; "possibly even birds from eastern Kansas are referable to the latter." He states further (l. c. p. 636) that specimens from the Mississippi Valley are so completely intermediate between the two forms that they may almost as properly be referred to one as to the other.

There has been available for study a series of ten males and six females from this region and only two male specimens from east of the Allegheny Mountains, but no typical *C. c. canicaudus* has been examined. A carefully drawn up table of measurements shows a very slight increase in the size of the local birds over the eastern specimens. No difference in the distribution

or intensity of the coloration can be detected. A comparison of the females with Ridgway's description of the female *canicaudus* type leads to the conclusion that the local bird is true *C. c. cardinalis,* or is at least much closer to it than to *C. c. canicaudus.* Mr. Dix Teachenor states that his study of the material in the Kansas University Museum leads him to believe that the Gray-tailed Cardinal does not range so far north as Douglas County, Kansas, or Jackson County, Missouri, and that he unhesitatingly referred the specimens in his collection, taken in the Lawrence neighborhood, to the eastern form.

The Cardinal is common throughout the county and is resident during the entire year. It nests freely in the suburbs of the city and is abundant in the parks and cemeteries. Its three or four eggs are laid in May and more than one brood is raised. The nest is a loose, bulky structure placed in low trees, bushes, briar tangles or thick vines.

The Redbird is silent only during the time of moulting, after the last brood of young are out of the nest. Great numbers pass the severe periods of winter in the shelter of Swope Park, in the upper Blue Valley, along the bluffs and in the timbered bottoms.

ZAMELODIA LUDOVICIANA (Linn.). Rose-breasted Grosbeak.
Common migrant; not uncommon summer resident.

The first Rose-breasts arrive between April 19th (earliest) and 29th and are common during early May when the bulk of the migrants are present. After the middle of the month only the breeding birds remain. The autumn migration is noticeable in middle and late September. There are no October records for this vicinity.

Rose-breasted Grosbeaks are to be found in all parts of the county in wooded tracts and even breed sparingly within the city.

GUIRACA CAERULEA CAERULEA (Linn.). Blue Grosbeak.
Recent and very rare summer resident.

Prior to the summer of 1918 there were but three known instances of the occurrence of the Blue Grosbeak in this vicinity, and these records were not entirely satisfactory. On July 13, 1918, a nest containing young was found in a peach orchard on the farm of Mrs. M. J. Morrin, just east of Swope Park.

Both old birds were observed feeding the young, and the male sang almost continuously. Mrs. Morrin states that the birds were present during the summer of 1917. This is the most northern breeding record for Missouri. A pair observed by Smithson near Warrensburg in June, 1904, were possibly nesting.

Like the Bewick's Wren this bird seems to be extending its range in this direction.

PASSERINA CYANEA (Linn.). Indigo Bunting.
Very common summer resident.

The Indigo Bunting arrives regularly during the last three days in April or the first three days in May It nests in late May and early June and leaves for the south during the early part of October.

It is found in dry, open woodlands, about the edges of thick timber, along brushy ravines, hillsides or roads and in any country overgrown with brush. It is very common in the Swope Park district, on the prairies in favorable localities, in the bottom country and bluff regions and along railroads.

PASSERINA AMOENA (Say). Lazuli Bunting.
Occasional or accidental visitant.

Only wanderers out of their range are likely to be met with in this vicinity. One specimen has been taken here, two have been taken at St. Joseph, Missouri, and one at Leavenworth, Kansas.

SPIZA AMERICANA (Gmelin). Dickcissel.
Very common summer resident.

The Dickcissels arrive during the last half of April and are very common early in May. Nesting begins by the middle of the month and two or three broods are raised. They leave in September, very few remaining into October.

The Dickcissel nests on the ground or in low bushes and is a lover of open fields. It is rarely found in the Missouri bottoms except during migration but is very common on the higher regions of the county. About fifteen pairs nest regularly on the rifle range and adjoining meadow in Swope Park but during some unfortunate years, as in 1917, they are all driven off and the nests destroyed by the early mowing of these tracts.

Family Tangaridae. Tanagers.

Piranga erythromelas Vieillot. Scarlet Tanager.
Common summer resident.

The Scarlet Tanager arrives from April 25th (1895, earliest) to the 30th, sometimes not until the last days of the first week in May. Nesting begins in early June, and after the postnuptial moult, when the young are on the wing, the birds leave for the south. The migrating period occupies nearly all of September. By the first of October all have left.

The Tanagers are woods-loving birds and are always found in the neighborhood of timber.

This species has a general distribution over the county and breeds in the timbered bottoms as well as in the woods of the high country and near the edges of the prairie regions.

It is common in Swope Park and the upper Blue Valley and breeds at several points in the southern suburbs.

Piranga rubra rubra (Linn.). Summer Tanager.
Fairly common summer resident.

This tanager arrives with its congenor in late April or early May and leaves during September. It is perhaps not quite as common as the Scarlet and is never found nesting in the Missouri bottom lands or other low timber. It prefers higher country, particularly dry oak woods, and occasionally builds its nest in orchards or other timber close to habitations.

It is numerous in Swope Park and on the wooded hills and ridges of the upper Blue Valley, as well as in many similar places in the central and southern parts of the county.

Family Hirundinidae. Swallows.

Progne subis subis (Linn.). Purple Martin.
Very common summer resident.

The earliest Martins arrive in mid-March (from the 4th to 26th). These are a few impatients males that are sometimes forced by late storms to rejoin their less venturesome brothers further south. By the last week in March there are always a few present and during the following two weeks they are joined daily by fresh arrivals. It sometimes happens that late sleet storms force the Martins to remain in their roosts for two or three successive days when they starve to death.

Nesting begins early in May and when the young are out the birds begin flocking to common roosts in the bottoms. They leave on the southern journey during early September.

Martins are sociable birds and breed in colonies wherever suitable bird-houses are provided or where they are able to find room in the cornices of old business buildings, as on north Main Street and elsewhere in the city.

To attract a colony of Martins it is necessary to provide a house of several rooms with the entrance holes at the bottom and placed as high from the ground as possible. It is also necessary to have the house out in the open away from trees.

PETROCHELIDON LUNIFRONS LUNIFRONS (Say).

PETROCHELIDON ALBIFRONS ALBIFRONS (Rafinesque). Proposed April, 1917. Cliff Swallow.

Not uncommon migrant; very rare summer resident.

For twenty years prior to 1917 no Cliff Swallows were known to breed in Jackson County. During that summer a colony of about a dozen pairs remained to breed in the neighborhood of Atherton. There are a few colonies in the adjoining counties on the east and north.

During migration they are regularly seen in small numbers hawking for insects over ponds with other swallows.

They arrive in late April and leave in early September.

HIRUNDO ERYTHROGASTRA Boddaert. Barn Swallow.

Abundant migrant and not uncommon summer resident.

The Barn Swallow arrives from the 13th to 20th of April and departs during the last half of September.

It is found in all parts of the county except close to the city. It builds in farm outbuildings, attaching its mud and straw nest to rafters, beams and walls.

Hosts of these and other swallows are to be found in the Missouri bottoms during migration where they find congenial roosting and feeding places. Numbers of swallows are also to be found over the Swope Park lakes during May and September.

IRIDOPROCNE BICOLOR (Vieillot). Tree Swallow.

Very common migrant.

During the second half of April and early May, and in September and October the White-bellied Swallow is abundant.

During this time it is to be found hawking for insects over any body of water with other swallows and flocking to the lowlands to roost.

It breeds not far to the north but has never been found nesting in this county.

RIPARIA RIPARIA (Linn.). Bank Swallow.
Common summer resident.

The Bank Swallow arrives during the last half of April and leaves in the first and second weeks of September. It may be found in migration about any suitable feeding place in the company of other swallows but in the breeding season is found only near the Missouri River. Great numbers breed in colonies in the high sandy banks of the river and in the exposed faces of the deep deposits of loess along the bluffs. Several railroad cuts at the base of the bluffs afford suitable sites for their nesting burrows.

This swallow may be distinguished from the Rough-wing, in whose company it is often found, by the dusky throat band. The Rough-wing has a dusky patch that is not clearly defined by the unmarked throat.

STELGIDOPTERYX SERRIPENNIS (Audubon). Rough-winged Swallow.
Common summer resident.

The Rough-wing arrives sometimes as early as April 4th but more often near the 15th or 20th and is present until late September. It is more widely distributed in this county in summer than the Bank Swallow though it has much the same nesting habits. It breeds in crevices in masonry, particularly in bridges but also in clay banks, but never in large colonies like those of the Bank Swallow, nor in such deep burrows.

It has been seen feeding about the Swope Park lakes during summer and no doubt nests in the park.

Family BOMBYCILLIDAE. Waxwings.

BOMBYCILLA GARRULA (Linn.). Bohemian Waxwing.
Very rare and irregular winter visitant.

Only three specimens of this rare and uncertain bird have ever been taken in this vicinity: February 27, 1911, December

25, 1916, and another, date unknown, taken in Platte County by Jno. Bryant.

The Bohemian Waxwing may occur more frequently than is known and students should closely scrutinize and follow up every winter flock of Cedar Waxwings seen in the hope of finding it. It is easily distinguished by its much larger size and by the presence of white in the wing.

BOMBYCILLA CEDRORUM Vieillot. Cedar Waxwing.

Irregular, sometimes common, migrant and winter resident; doubtful summer resident.

The following dates selected from a mass of notes on this bird will show the puzzle of its local occurrence.

Jan. 17, 1915. Twenty.	Apr. 30, 1896. Flock.
Jan. 26, 1905. Small flock.	May 6, 1894. Flock.
Feb. 4, 1894. Numbers.	May 7, 1911. Twelve.
Feb. 11, 1904. Few.	May 20, 1916. Flock.
Feb. 15, 1917. Eighteen.	May 25, 1894. Small flock.
Feb. 20, 1916. Twelve.	May 30, 1904. Flock.
Feb. 21, 1901. Numbers.	May 30, 1916. Twenty-five.
Mar. 2, 1914. Twenty.	Jun. 2, 1894. Few.
Mar. 5, 1903. Flock.	Jun. 4, 1894. Few.
Mar. 6, 1898. Small flock.	Jun. 5, 1907. Few.
Mar. 12, 1916. Thirty.	Jun. 8, 1897. Few.
Mar. 19, 1915. Forty.	Oct. 8, 1916. Forty.
Mar. 26, 1914. Flock.	Oct. 17, 1915. Flock.
Apr. 4, 1907. Large flock.	Oct. 31, 1904. Seventy.
Apr. 5, 1896. Twenty.	Nov. 5, 1893. Flock.
Apr. 9, 1905. Three.	Nov. 13, 1893. Flock.
Apr. 17, 1905. Flock.	Nov. 30, 1916. Two.
Apr. 28, 1917. Small flock.	Dec. 25, 1916. Eight.

The Cedar Waxwing probably occurs during the three months not given and yet it has never been known to breed in this vicinity.

Flocks are likely to be met with in any part of the county. They are fond of hackberries, persimmons, wild grapes, choke cherries and many other kinds of wild fruit found here in abundance.

They sometimes swoop down into the shade trees along the

boulevards but are most often seen in the Missouri bottoms and bluff regions.

Family LANIIDAE. Shrikes.

LANIUS BOREALIS Vieillot. Northern Shrike.
Rare winter visitant.

The Northern Shrike is distinctly larger than the Migrant Shrike, and may be recognized in the field by its size by a careful observer familiar with the latter species. It may be looked for anywhere in the county during winter. It is never numerous and in some winters is not seen. It is likely to be met with any time between early November and late March or early April.

Three specimens only are known to have been taken in this vicinity, November 24, 1901, January 18, 1909 (Dankers), the third date not being available. Bush gives several dates on which he has observed this bird.

LANIUS LUDOVICIANUS EXCUBITORIDES Swainson. White-rumped Shrike.
Accidental visitant.

Only one specimen of this western shrike has ever been taken in the county (April 25, 1902), and it is considered only accidental. Its range in this latitude extends as far east as central Kansas.

LANIUS LUDOVICIANUS MIGRANS W. Palmer. Migrant Shrike.
Common summer resident; occasional winter resident.

The Migrant Shrike is the breeding form for this district and arrives commonly from the 12th to 20th of March. It departs in late October and early November and a few may remain during mild and open winters. Even in severe winters an occasional bird is seen.

This shrike is fairly common over the whole county but is most numerous on the prairies and open farming country, particularly where the osage orange hedges afford it breeding places. It is seldom seen in the Swope Park neighborhood but is common south of the Country Club district and on the high country south and east of Forest Hill Cemetery and beyond Dodson.

The nesting period is during the last two weeks of April and

later. Four to seven eggs are laid and two broods are often raised.

Family Vireonidae. Vireos.

Vireosylva olivacea (Linn.). Red-eyed Vireo.
Common summer resident.

The Red-eyed Vireo arrives regularly during the last four days of April and leaves during the last week of September. It is our commonest vireo and comes freely into the wooded sections of the city to breed. One pair even yet comes to nest in a thicket on the ledge in Penn Valley Park, a few blocks from the Union Station. Red-eyed Vireos are numerous in and about Swope Park, in some of the cemeteries, in the wooded sections bordering the Country Club and other districts within the city and along the bluffs. The nesting season begins about the second week in May.

Vireosylva philadelphica Cassin. Philadelphia Vireo.
Rather rare migrant.

There are but six known records of the local occurrence of this vireo, all during the month of May. Two specimens have been taken by Tindall on May 10, 1893, and May 8, 1898, respectively.

Vireosylva gilva gilva (Vieillot). Warbling Vireo.
Common migrant and not uncommon summer resident.

The Warbling Vireo rarely arrives in numbers before the first week in May though singing males are occasionally heard as early as the middle of April. It leaves for the south during the first two weeks of September.

During migration Warbling Vireos may be found in wooded places in every part of the county but in summer they seem to prefer the bluff regions and neighboring territory. They are heard singing during the nesting season about Independence, Courtney, Atherton and Sibley and in the Missouri and lower Blue Valleys. They have been found nesting in Fairmount Park.

Lanivireo flavifrons (Vieillot). Yellow-throated Vireo.
Not uncommon summer resident.

The Yellow-throated Vireo arrives about the middle of April and leaves in late September. This vireo loves damp woods and

prefers thick wooded creek bottoms and ravines near water. It nests regularly in Shilo Hollow at the edge of Swope Park and in the Hazel Dell neighborhood within the Park. It is most numerous during migration in the Missouri Valley and along the bluffs.

LANIVIREO SOLITARIUS SOLITARIUS (Wilson). Blue-headed Vireo.
Not uncommon migrant.

The Solitary Vireo is a comparatively late visitor, arriving during the last few days in April or the first week in May, often remaining till the last of May (May 26, 1893, May 15, 1899, May 18, 1915, and May 28, 1916, latest). It leaves for the south during the last few days of September. It is seen regularly along Brush Creek in the Country Club district, in the Missouri and Blue Valleys, along the bluffs, about Independence and in Swope Park.

VIREO GRISEUS GRISEUS (Boddaert). White-eyed Vireo.
Fairly common summer resident.

The White-eyed Vireo arrives from April 26th to May 4th and leaves during the second and third weeks of September at which time it is usually in full song.

The nesting period begins early in June. It is found in the rich undergrowth of timbered places near streams and near the edges of clearings. It breeds in such places over the entire county but is more numerous in the Missouri bottoms and along the bluff ravines and creeks. Several pairs nest regularly in and about Swope Park.

VIREO BELLI BELLI Audubon. Bell's Vireo.
Fairly common summer resident.

The Bell's Vireo was made known to science by Audubon who met with it for the first time in the bottom lands of the Missouri between Fort Leavenworth and St. Joseph. The first specimen was shot by J. G. Bell, a member of Audubon's party, on May 4, 1843. The Bell's Vireo and the Harris's Sparrow are the two birds which have been discovered in the territory covered in this list.

This vireo arrives during the first days of May, seldom before the third (April 30, 1899, April 27, 1900, earliest), and leaves for the south shortly after the middle of September.

This species is not so closely associated with thick woods as most of the other vireos and may be found on the prairie regions in thickets, hedges, bushes and small clumps of trees or shrubbery. It nests in the outskirts of the city and may be found in the neighborhood of Swope Park as well as other easily accessible places further west and south. It nests early in June.

Family Mniotiltidae. Wood Warblers.

Mniotilta varia (Linn.). Black and White Warbler.
Common migrant and rather rare summer resident.

The Black and White Warbler arrives from the 15th to 20th of April (April 11, 1915, earliest) and is very common in the wooded sections of the county until the middle of May. From then on until the first week in September only the breeding birds are present. During the first two weeks of September the migrants are again numerous.

This distinctively marked warbler breeds in the less frequented sections of Swope Park where it has been observed carrying nesting material and feeding full grown young. Unlike most of the warblers it often feeds near the ground on the trunks of trees and among low bushes and is easy of approach.

During the spring migration, when the birds are mating, they are seen in numbers in wooded territory over the entire county, particularly in Swope Park.

Prothonotaria citrea (Boddaert). Prothonotary Warbler.
Common summer resident.

The Prothonotary Warbler arrives irregularly from the middle to last of April (April 7, earliest) and leaves during the first half of September.

It nests in holes and cavities and prefers to be near water. It breeds along the Blue in the Swope Park district and is common in the Missouri bottom timber near swampy and damp places. Deserted woodpecker holes in standing dead trees or stumps are favorite nesting sites.

Great numbers migrate up and down the Missouri Valley.

Helmitheros vermivorus (Gmelin). Worm-eating Warbler.
Not uncommon summer resident.

The Worm-eating Warbler arrives during the first few days

in May and leaves early in September. It is most numerous during the second week in May when the bulk of the migrants pass. At this time it is evenly distributed over the wooded sections of the entire county. In the breeding season it is found only about rocky ledges bordering thick timber, preferably near creek bottoms or damp ravines. Such conditions are found in and about Swope Park where the dry monotonous song of this warbler is heard regularly during summer. This song is very similar to that of the Chipping Sparrow but is distinguishable from it in being higher pitched and more rapid in execution. The songs, too, are never heard in the same environment.

VERMIVORA PINUS (Linn.). Blue-winged Warbler.
Rather rare summer resident.

The Blue-winged Warbler arrives during the last days of April and during the next ten days northbound migrants are present in numbers in the wooded regions of the county.

Its buzzing notes are heard all summer in the less frequented woods of Swope Park where it seems to be increasing in numbers during recent years. With the exception of some of the wilder bluff regions, the conditions for the successful raising of its young are more favorable in Swope Park than in any other region of the county.

VERMIVORA CHRYSOPTERA (Linn.). Golden-winged Warbler.
Extremely rare migrant.

Though there is but one record of the local occurrence of this warbler (May 9, 1889, Bush) it is not considered as merely accidental. It migrates regularly through the eastern part of the state and occurs sparingly south of this district. It is hoped that students may be able to secure and transmit further data regarding this species.

VERMIVORA RUBRICAPILLA RUBRICAPILLA (Wilson). Nashville Warbler.
Not uncommon migrant.

The Nashville Warbler arrives from April 25th to May 5th and is most numerous during the second week in May. The latest spring record is May 22, 1916, which is an extremely late date. The returning migrants pass through during the last half of September.

This warbler is found in all wooded sections of the county, including the southern and eastern suburbs of the city.

VERMIVORA CELATA CELATA (Say). Orange-crowned Warbler.
Not uncommon migrant.

The Orange-crowned Warbler arrives during the last week of April (April 17, 1916, earliest) and is present until the middle of May (May 20, 1916, latest). Its passage through the county is never marked by any great numbers. The earliest fall arrivals are noted about the middle of September (Sept. 14, 1903, earliest) and individuals are present until the middle of October.

On account of the lack of any bold markings the Orange-crowned Warbler is difficult to distinguish in the field and is often overlooked. It frequents low thick bushes more than other species. The bird may generally be discovered by its song, which is feeble and sounds like an unsuccessful effort to keep on one key. It may be looked for in the timbered bottoms and bluff regions of the Missouri River and in the upper Blue Valley in the Swope Park and Dodson districts, and in thickets even in the residence district in the city.

VERMIVORA PEREGRINA (Wilson). Tennessee Warbler.
Very common migrant.

With the possible exception of the Myrtle, the Tennessee Warbler is our commonest warbler. The birds first arrive during the last few days of April and become most numerous during the first ten days of May. Stragglers are sometimes seen as late as May 25th (1916, three). The southward movement is noticeable in late September and the first half of October.

At the height of migration the nervous staccato song of this species resounds from every tree, even in the outer residence section of the city.

COMPSOTHLYPIS AMERICANA USNEAE Brewster. Northern Parula Warbler.
Very common migrant and not uncommon summer resident.

The Parula Warbler arrives from the 16th to 28th of April and leaves during the last half of September. During the first week or ten days of May the spring migration is at its height and the tall timber of the bottom lands fairly teems with these buzzing and persistent songsters. They are somewhat gaudily

marked birds but are difficult to see as they feed among the dense foliage of the highest tree tops.

They breed in the Missouri and Blue Valleys and may be commonly found in Swope Park during summer.

One form of the song of this species is similar to that of the Cerulean Warbler but may be distinguished by a difference in the opening notes, which are more drawled in the song of the Parula.

DENDROICA TIGRINA (Gmelin). Cape May Warbler.
Very rare migrant.

The only known records of the occurrence of this warbler in this vicinity are May 22, 1909, May 11, 1911, May 11, 1912 and April 26, 1915. The record for May 11, 1912, was made over the state line in Johnson County, Kansas.

DENDROICA AESTIVA AESTIVA (Gmelin). Yellow Warbler.
Very common migrant and common summer resident.

The Yellow Warbler arrives regularly during the last five or six days of April. During early May when the bulk of the migrants are present, they are distributed over the entire county. This species is most numerous in the Missouri bottoms between May 2nd and 7th when it may be said to fairly swarm in the willow thickets. It also prefers to nest in the bottom lands and in the wide valleys leading into these regions. It has never been found in Swope Park in summer but there is one breeding record for the lower Brush Creek region not far to the west.

It is not seen in this county after the first week or ten days in September.

[DENDROICA CAERULESCENS CAERULESCENS (Gmelin). Black-throated Blue Warbler.]
Probable migrant.

This warbler has been reported several times to the east and west of this district but there is no known instance of its occurrence in the immediate vicinity. Students should be on the lookout for this distinctively marked species during migration times.

DENDROICA CORONATA (Linn.). Myrtle Warbler.
Very common migrant and rather rare winter resident.

During favorable winters when there is an abundant supply

of their favorite food, the fruit of the poison ivy, at least a few flocks of Myrtle Warblers are present in the thick timbered sections of the bluff regions and bottom lands. In some winters, as in 1914-15 and 1915-16, these birds are to be found in noticeable numbers during the most severe weather conditions.

The migrants begin arriving from the 16th to 25th of March and by the middle of April are present in large numbers throughout the entire county. Very few are seen after the first week in May though an occasional straggler lingers until rather late in the month (May 20, 1916, latest).

The earliest fall birds reach here from September 27th (1908, earliest) to late in the first week of October, and by the last of the month the migrants are gone and only winter numbers are present.

These warblers may be looked for during migration in any wooded place. They pass through Swope Park in great numbers and are found along the boulevards and about lawn shade trees. They are restless birds but often feed low down in the trees and in bushes and are easy of approach.

DENDROICA MAGNOLIA (Wilson). Magnolia Warbler.

Regular but rather uncommon migrant.

The Magnolia Warblers pass through at the height of the spring migration between the 11th and 16th of May. No fall records are available but the returning migrants should be looked for during the second and third, and possibly fourth, weeks of September. They may be found in the tall trees along the rivers and creeks, and even in the hawthorn and crab thickets of the outer residence districts.

The greatest number ever noticed in one year was on May 14, 1917, when more than ten birds were seen between Independence and Courtney (Tindall).

DENDROICA CERULEA (Wilson). Cerulean Warbler.

Common migrant and not uncommon summer resident.

The first Cerulean Warblers are usually heard on May 1st, rarely before (April 29, 1900, earliest), and sometimes not until the last days of the first week of May. They leave early for the south, not being seen usually after late August. As they haunt the tops of the highest trees they are more often heard

than seen, and during their silence after the breeding season are often overlooked.

They are to be looked for in thick bottom timber. Several pairs nest regularly in the damp woods of Shilo Hollow and Hazel Dell, in Swope Park. They also breed in the Missouri Valley.

The song is similar to one form of the Parula Warbler's song but may be distinguished by its opening, which consists of a series of double notes briskly given. The two are often heard together in the woods near the south suspension bridge across the Blue River in Swope Park.

DENDROICA PENSYLVANICA (Linn.). Chestnut-sided Warbler.
Very rare migrant.

There are but eight available records of the occurrence of this warbler in Jackson County. It was observed on April 30th during two years and from the 13th to 20th of May during five others. No autumn records are available.

DENDROICA CASTANEA (Wilson). Bay-breasted Warbler.
Very rare migrant.

This warbler has been reported as rare both to the east and west of this district and there is but a single local record, of ancient origin (Hoy). Students should be on the lookout for further records.

DENDROICA STRIATA (J. R. Forster). Black-poll Warbler.
Common migrant.

The Black-poll brings up the rear of the north-bound warbler army and is commonest during the second and third weeks of May. The advance guard usually arrives between the 2nd and 7th of May though in favorable seasons it may arrive earlier (April 27, 1900, April 28, 1904, April 29, 1915, earliest). The southward flight passes during September.

The Black-poll Warblers may be looked for in all wooded sections of the county and in the park cemeteries.

DENDROICA FUSCA (Muller). Blackburnian Warbler.
Rather rare migrant.

Blackburnian Warblers appear about the end of the first week in May and are rarely seen after the 20th (an exceptionally late date is May 30, 1904). They pass through on the re-

turn flight from the 10th to 25th of September. They are never numerous. They are to be looked for in wooded places beloved of the warblers. Several records have been made in Swope Park.

DENDROICA DOMINICA ALBILORA. Sycamore Warbler.

Not common migrant; probable summer resident.

This region is on the western edge of the range of the Sycamore Warbler, and though it is a regular migrant and very possibly a more or less regular summer resident, it has not been often noted.

This warbler is one of the first to appear in spring, being preceeded only by the Myrtle Warbler. The earliest available record is April 7, 1918 (mouth of Indian Creek).

The Sycamore Warbler is a frequenter of tall trees in bottom land along water courses. It is difficult to see in the tree tops, but is distinctively marked and has a very characteristic song, the manner of delivery of which recalls the Indigo Bunting.

DENDROICA VIRENS (Gmelin). Black-throated Green Warbler.

Not common migrant.

The Black-throated Green Warbler is present during the first three weeks of May and during all of September. It is never present in very great numbers.

It may be looked for in the wilder parts of Swope Park, in the Dodson region and in the timber of the Missouri and Blue Valleys.

DENDROICA VIGORSI (Audubon). Pine Warbler.

Regular but not common fall migrant.

The Pine Warbler is regularly seen here between September 3rd and October 16th, during which time it is often in full song. It is given as a fall migrant only as it has never been observed here in spring. This is perhaps merely an oversight as it migrates north through eastern Kansas and eastern Missouri. Students should be on the lookout for this bird in the spring in the hope of establishing a new record.

Some recent records are: Sept. 3, 9 and 10, 1914 (singing), Sept. 9, 14, and 15, 1915 (singing), Sept. 10, 1916, and Oct. 16, 1916.

DENDROICA PALMARUM PALMARUM (Gmelin). Palm Warbler.
Regular but not numerous migrant.

The Palm Warbler arrives from April 27th to May 7th but is never very numerous. It passes through on the southward flight between the 5th and 11th of October.

Usually single birds are seen, though sometimes they occur in small troops of twos and threes. They may be looked for in the timber of the Missouri and Blue Valleys and in Swope Park.

DENDROICA DISCOLOR (Vieillot). Prairie Warbler.
Occasional.

There is but one known record of the occurrence here of the Prairie Warbler—May 6, 1911, near Dodson.

SEIURUS AUROCAPILLUS (Linn.). Oven-bird.
Common migrant and rather rare summer resident.

The Oven-bird arrives during the last week of April and increases in numbers in the first week of May. At this time it may be looked for in all thickly wooded places over the county, especially in the bluff and bottom regions and in such places as the upper Blue Valley. The migrants are again present during September.

The only places in the county where this warbler is known to breed are a few wild sections of the bluff regions, as near Sibley, and on the dry wooded ridge in Swope Park south of Hazel Dell. In the latter place the songs of the Ovenbird and Kentucky Warbler, which are very similar, may be heard together.

SEIURUS NOVEBORACENSIS NOTABILIS Ridgway. Grinnell's Water-Thrush.
Not rare migrant.

This northwestern form of the Water-Thrush passes through this region regularly during the first half of May (April 29, 1917, earliest; May 15, 1916, latest) and during September.

It is to be looked for either in the same kind of territory as that frequented by the southern species, which is the breeding form for this region, or in swampy places in woods. With the aid of glasses the two forms are readily distinguishable in the field and may be further identified by their noticeably different songs.

The Grinnell's Water-Thrush is a regular migrant through

Swope Park. It has been observed at close range in the small swamp in the woods near the Swope rifle range.

Seiurus motacilla (Vieillot). Louisiana Water-Thrush.
Common migrant and not uncommon summer resident.

Our earliest arrival date for this warbler is April 1, 1905, though the average is ten days or two weeks later. During the first week in May numbers of migrants are found along the streams, especially along the banks of the Missouri River in the willow thickets and other dense growths standing on high cutting banks. The fall migratory flight passes through in September.

These warblers breed not uncommonly in the ravines and creek bottoms of the bluff regions and in the valleys of the Big and Little Blue. They nest also in favorable places in and about Swope Park.

Oporornis formosus (Wilson). Kentucky Warbler.
Rather common summer resident.

The Kentucky Warbler arrives during the first week of May, though occasionally earlier (April 30, 1899, April 29, 1900, April 29, 1917), and leaves late in September. It nests in the deep woods of the Missouri Valley and in the thick undergrowth along the wooded creek bottoms of the higher regions. It is fairly common as a breeder in certain favorable sections of Swope Park and the upper Blue Valley. Three pairs nested in Shilo Hollow during the summer of 1917 and had not left their breeding stands on September 3rd. Bush states that they nest in the coarse grass and sedge along swamps and sloughs in the Courtney district.

Oporornis agilis (Wilson). Connecticut Warbler.
Very rare migrant.

Only two local records of this warbler are available. One was seen near Independence on May 12, 1914. On May 15, 1916, one was observed at close range in the Country Club region and was heard to sing repeatedly. It was feeding in a clump of Buckberry bushes under large trees from which it sang as it did also from a small thorn tree and from the ground. The song was loud and clear and Carolina Wren-like and may be transcribed as Wee-chipper, Wee-chipper, Wee-chipper, Chip (Hoffmann).

OPORORNIS PHILADELPHIA (Wilson). Mourning Warbler.
Regular but not numerous migrant.

The ten available records of the local occurrence of this warbler are between May 13th and 23rd. They have been noted in the Missouri bottoms and bluff timber, in Swope Park, and in the Country Club region. Their presence here on the return flight has thus far been overlooked.

GEOTHLYPIS TRICHAS TRICHAS (Linn.). Maryland Yellow-throat.
Very common summer resident.

The Yellow-throats arrive regularly between the 23rd and 29th of April (April 19, 1914, only earlier date). These early arrivals announce their presence first from the bottom lands, but are soon scattered over the uplands as well. From May 5th to 10th the greatest numbers are present in the willow thickets along the Missouri River.

The breeding birds are evenly distributed over the county and may be looked for along all water courses, even ditches, and in any damp woods or low bushy places. They nest within the city in Swope Park, along the Blue and Brush Creek Valleys, in the Country Club and Rockhill regions, in the cemeteries and along Cliff Drive. They nest about the middle of May and lay from four to six eggs.

The fall migration begins during the first days of September and continues through the month, very few birds being seen during the last week.

ICTERIA VIRENS VIRENS (Linn.). Yellow-breasted Chat.
Common summer resident.

Like several of the warblers, the earliest Chats are to be looked for in the thick tangles of the Missouri bottoms where the bulk of the migrants pass. These forerunners appear regularly between the 24th and 29th of April. By the 5th to 10th of May the crest of the migration wave is passing.

This warbler inhabits thickets, briar tangles, bushy ravines, second-growth timber, burnt-over hillsides and all kinds of brushy undergrowths. Three to six eggs are laid late in May.

The Chat is something of a skulker, but is occasionally caught at his clownish antics. A good place to hear the indescribable song of this species is in the neighborhood of the rifle range meadow in Swope Park.

The Chats disappear from their breeding stations early in August (August 4, 1904, family party) and the fall migration is not noticeable, as the birds are then silent and secretive.

WILSONIA CITRINA (Boddaert). Hooded Warbler.
Rare visitant and possible occasional breeder.

The few local records of this warbler are, with one exception, from the timbered regions of the Missouri bottoms and are between the 8th and 25th of May. On May 25, 1916, a pair seen near Independence may have been breeding.

WILSONIA PUSILLA PUSILLA (Wilson). Wilson's Warbler.
Not uncommon migrant.

The Wilson's Warbler is present from May 1st to 20th and again during the first week or ten days of September. It seems to prefer the upland wooded regions, since there are but three records from the bottom lands. It passes through regularly on both spring and autumn migration, but is never present in very great numbers.

WILSONIA PUSILLA PILEOLATA (Pallas). Pileolated Warbler.
Occasional migrant.

Only one Pileolated Warbler has been taken in the county; near Independence (Ridgway, Birds of North and Middle America, U. S. N. M. Bull. No. 50, Vol. 2, p. 712). A specimen was taken by Bunker and Wetmore near Lawrence, Kansas, on October 17, 1908.

WILSONIA CANADENSIS (Linn.). Canada Warbler.
Rare and irregular migrant.

During some years a few of these warblers pass this way and during others none are seen. Their nearest regular migration route, where they pass in great numbers, is the valley of the Mississippi River. The latest record for this species is one bird seen on May 13, 1916.

SETOPHAGA RUTICILLA (Linn.). Redstart.
Very common migrant and fairly common summer resident.

Redstarts arrive from the 25th to 30th of April and leave during September. In early May, when the migrants are most numerous, they are present in all parts of the county in wooded places and may be looked for in all the city parks and along the

boulevards. During the breeding season they resort to damp woods and timbered creek bottoms and are then fairly common in Swope Park, the upper Blue Valley, the Missouri bottoms and bluffs and many other like places. Three to four eggs are laid in early June.

Family Motacillidae. Wagtails.

Anthus rubescens (Tunstall). Pipit.
Fairly common migrant.

The fall migration of Pipits is more noticeable than the vernal passage, since the flocks are much larger and remain in one place for a longer period. They arrive from the north in flocks of often several hundreds during early October (Sept. 30, 1897, earliest) and are present in some years till November 22 (1914). The greatest numbers are present from the 13th to 30th of October.

Pipits frequent bottom clearings, grass and alfalfa fields and open spaces at the edges of willow thickets where the ground vegetation is scant. They also feed about the banks of ponds and in barnyards and burnt-over places on the prairie regions. At one farm pond where the surrounding spaces are favorable feeding grounds, a flock of about two hundred Pipits arrived on October 20, 1916, and remained until November 10th.

The spring migration begins about March 29th and is over by May 2nd (1915, latest date).

Pipits may be looked for in the open districts of the Missouri bottoms and in favorable places on the prairie regions. They have been observed in the neighborhood of Swope Park and about Dodson.

Anthus spraguei (Audubon). Sprague's Pipit.
Rare migrant.

Only two known specimens of this form have been taken. The Sprague's Pipit is given by Bunker as a rare migrant in eastern Kansas. It may occur regularly in large flocks of the preceding species.

Family Mimidae. Thrashers, Mockingbirds, etc.

Mimus polyglottos polyglottos (Linn.). Mockingbird.
Fairly common summer resident; somewhat rare and irregular winter resident.

As a winter resident the Mockingbird is irregular or has

escaped notice during some winters. It has been observed in December, January or February of 1898, 1904, 1906, 1907, 1910, 1916 and 1917.

It appears at its breeding station very irregularly from March 1st to April 10th and leaves usually in early August, sometimes later.

The Mockingbird prefers the neighborhood of man and since the improving of the Rockhill and Country Club regions and Swope Park it has greatly increased within the city. It nests in these districts as well as in the cemeteries, the Marlborough neighborhood, and about Dodson and Independence. Four eggs are laid in early June. More than one brood is raised, young birds having been found as late as September 4th (1913).

DUMETELLA CAROLINENSIS (Linn.). Catbird.
Very common summer resident.

The first Catbirds are seen between April 25th and May 2nd (April 19, 1903, earliest). Great throngs of migrants are present between the 5th and 9th of May in the willows of the Missouri bottoms. They leave about the middle of September, and from the 17th to 20th of the month the willows again swarm with migrants. Only an occasional straggler is seen after the first day of October.

This familiar bird is a common breeder within the city wherever there is thick shrubbery or bushy cover. Like the Mocker, it takes kindly to the protection of man and, though a somewhat shy bird, it is noticeably on the increase. Four or five eggs are laid during the middle of May and later another nest is built and at least one more brood raised.

TOXOSTOMA RUFUM (Linn.). Brown Thrasher.
Very common summer resident.

The first of the migrating Brown Thrashers arrive from the 1st to the 6th of April, though occasionally single birds are seen much earlier (Feb. 28, 1904; March 26, 1905; March 26, 1914). The local birds arrive on their breeding stands and begin singing from the 10th to 15th of April. They leave during the last half of September and none are seen after the last few days of the month. They breed freely within the city in the same districts and in the same kind of brushy cover as the Catbird. The two species do not nest close together, however, as they are mortal enemies during the breeding season and

have been known to battle to the death over a disputed nesting site.

Four or five eggs are laid in late April and three broods are often raised.

Family Troglodytidae. Wrens.

Thryothorus ludovicianus ludovicianus (Latham). Carolina Wren.

Common resident.

The Carolina Wren is present during the entire year and is one of the few winter songsters. It is to be looked for in any kind of wooded territory and is common in the Swope Park district, in the Blue Valley and Brush Creek woods and in all the wilder sections of the county.

It nests among overhanging roots along creeks and ravines or in holes in the banks. One nest was found by Tindall in a wagon bridge near Independence. Five to seven eggs are laid in early May and more than one brood is raised. One nest was found on August 15, 1901, containing three fresh eggs (Tindall).

Thryomanes bewicki bewicki (Audubon). Bewick's Wren.

Very rare visitant or summer resident.

This wren is slowly extending its range northward and has probably already reached the extreme south and east borders of the county, as it has been regularly seen in the adjoining county (Johnson) since 1907. Since its arrival in the latter district it has established itself as a breeder and has become noticeably less rare. Smithson states that he has seen as many as six in one morning at Warrensburg and has several times seen them carrying nesting material.

The Bewick's Wren is a much more desirable neighbor than the House Wren, as its beautiful song has none of the harsh and penetrating and, to some, disagreeable qualities of that bird. It is also more beautiful, graceful and less quarrelsome than the House Wren.

Troglodytes aedon parkmani Audubon. Western House Wren.

Very common summer resident.

Impatient House Wrens have been seen here as early as March 15th (1903) and several times between the 1st and 10th of April. During some years they arrive between the 15th and

21st of April, the bulk of the migrants passing between the 5th and 8th of May, at which time they swarm in the willows of the Missouri bottoms. They leave during early September and are rarely seen after the middle of the month. Some exceptionally late dates are as follows:—Oct. 6, 1901; Oct. 15, 1911; Oct. 15, 1916, and Nov. 7, 1916.

This wren nests in birdhouses, in crevices about buildings, in the pockets of discarded garments, in tin cans and in other similar situations too numerous to list. It also nests in the deep woods of the bottom lands and other wild places in natural cavities in trees and deserted woodpecker holes. Five to seven eggs are laid in May.

NANNUS HIEMALIS HIEMALIS (Vieillot). Winter Wren.
Irregular but not uncommon winter resident.

During those winters when the Winter Wren is present it may be looked for in timbered creek bottoms, ravines, thick brushy places and weedy roadsides. It is to be found in the thick cover of the Missouri bottoms and bluffs and in Swope Park and the Dodson region. During some winters it is fairly common and in others is either absent or present in very few numbers. Our records covering a period of about twenty years show that it is present from September 30 (1906, earliest) to April 19 (1908, latest), being commonest during the first half of October.

CISTOTHORUS STELLARIS (Naumann). Short-billed Marsh Wren.
Rather uncommon migrant and probable summer resident.

This wren is seen most often in the Missouri bottoms about sloughs and grassy swamps. It has also been noted on the prairie regions and in the upper Blue Valley.

All available local records show its presence here during April and in September and early October. Students should be on the lookout for breeding records, as both Marsh Wrens have been found nesting in the swamps of the up-river counties.

TELMATODYTES PALUSTRIS ILIACUS Ridgway. Prairie Marsh Wren.
Rather uncommon migrant and summer resident.

This wren is present from the middle of April till early in May (in Jackson County) and again during late September and October. It occurs most commonly in the Missouri bot-

toms, but has been seen at Lake City and other marshy places on the uplands.

It breeds in the cat-tail swamps of the river lakes in nearby counties, but the nest has not been taken in Jackson County.

Family Certhiidae. Creepers.

Certhia familiaris americana Bonaparte. Brown Creeper.
Common winter resident.

Regularly on October 8th, 9th or 10th the first Brown Creepers may be expected from the north, remaining until from the 10th to 20th of April. They are most numerous during the second and third weeks of October and in the first week of April. During migration they are distributed over the entire county wherever there are trees. In winter they seem to prefer the woods bordering the prarie regions, though they are common on the bluffs and in the bottom timber, especially in the large timber of the Indian Creek Valley. During the latter period of their stay they are sometimes heard in full song.

Family Sittidae. Nuthatches.

Sitta carolinensis carolinensis Latham. White-breasted Nuthatch.
Not uncommon resident.

The White-breasted Nuthatch is present during the entire year in the wooded sections of the county. In winter it is a not infrequent visitor within the city, where it hunts for insect food on the trunks of the shade trees. During the breeding season it retires to the deeper woods to nest in cavities in trees. Six to nine eggs are laid in late April.

Its peculiar grunting notes are familiar sounds in the winter woods.

Sitta canadensis Linn. Red-breasted Nuthatch.
Not uncommon migrant.

This small nuthatch is present in varying numbers from the first few days of October (September 30, 1906, earliest) to about the middle of January (January 18, 1913, latest), and again from the middle of March (March 14, 1914, earliest) to the first week of May (May 5, 1917, latest). It is to be looked for in the same kind of wooded places as the preceding species and,

like it, is sometimes seen along the city streets. It has been noted rather regularly in Swope Park, in the Country Club region, in the cemeteries and about Dodson and Independence.

The Red-breasted Nuthatch has been noticed feeding on the seeds of the large ragweed, *Ambrosia trifida*, which it carries to fence posts and hammers open in the cracks in the timber.

Family Paridae. Titmice.

Baeolophus bicolor (Linn.). Tufted Titmouse.

Very common resident.

The monotonous call of the Tifted Tit is a familar sound in the woods during the entire year except in the breeding season. Owing to their numbers and sprightly behavior and their continual calling and answering, they are one of the most conspicuous birds of the winter woods.

They nest commonly in the outlying districts of the city in bird-boxes, old woodpecker holes and other cavities, and are also found in wooded tracts in all parts of the county. Six to eight eggs are laid late in April and early May.

Penthestes atricapillus atricapillus (Linn.). Chickadee.

Very common resident.

The Chickadee, like its relative, the Tufted Titmouse, is present throughout the year and is evenly distributed over the entire county. It is probably more numerous than the latter and comes into the city to feed during winter in greater numbers.

It nests in cavities, sometimes excavated by itself at the expense of no little labor, and lays from five to seven, rarely eight, eggs in early April.

Penthestes atricapillus septentrionalis (Harris). Long-tailed Chickadee.

Somewhat rare winter visitant and probably rare resident.

A few counties to the north, as well as twenty or thirty miles to the west, this form is the common Chickadee. The few local records are mostly in winter and indicate a partial migratory movement of these neighboring birds. Bush reports that a few are seen in the bottoms in the Courtney district during the entire year and that he considers the bird a regular breeder. The local records are chiefly from the Missouri bottoms.

Family Sylviidae. Kinglets and Gnatcatchers.

Subfamily Regulinae. Kinglets.

Regulus satrapa satrapa Lichtenstein. Golden-crowned Kinglet.

Common migrant and not uncommon winter resident.

Wintering Golden-crowned Kinglets may be found in the wooded bluff and bottom regions, in the cemeteries, in the timber along the Blue and Brush Creek, in the parks and in wooded places at the edges of the prairie country. They arrive from the north usually between the 5th and 10th of October (Sept. 24, 1904, and Sept. 3, 1906, the latter a very exceptionally early date) and the bulk of the migrants are present during the second and third weeks of the month. The spring movement is noticeable during the first three weeks of April, when great numbers of these tiny birds pass through the city. None have been noted later than April 26th.

Regulus calendula calendula (Linn.).

Corthylio calendula calendula (Linn.). Proposed 1917. Ruby-crowned Kinglet.

Common migrant.

The latest fall records for the Ruby-crowned Kinglet are December 24 and 25, 1916, when a small troop was seen in the Missouri bottom timber. These birds probably did not remain throughout the later cold periods of the winter, but moved on further south. They arrive in the spring with the Golden crowns, but remain later, stragglers having been noted as late as past the middle of May (May 18, 1905, and May 17, 1916) and fairly regularly during the first week of the month. Fall dates are about the same as for the other kinglet.

They frequent timbered places and are to be looked for in the same localities as the Golden-crowns. In migration they are common in the trees and thickets of the outlying residence districts.

Subfamily Polioptilinae. Gnatcatchers.

Polioptilla caerulea caerulea (Linn.). Blue-gray Gnatcatcher.

Common migrant and not rare summer resident.

The Gnatcatchers arrive from the 11th to 20th of April

(March 30, 1913, exceptionally early) and leaves from the middle to last of August. It nests during the middle of May; four or five eggs are laid. The nest is one of the most wonderful examples of bird workmanship known. It is an exquisitely formed cup, rather deep, composed of down from buds, bits of fine twigs and leafy material woven together with spider webs and thickly covered over with delicate bits of lichens. It is saddled on branches or between the forks of horizontal limbs like the nest of the Hummingbird and is usually from twenty to thirty feet from the ground. Favorite nesting sites are dry ledges or hillsides grown over with oak.

Gnatcatchers may be found in the bluff regions, in Swope Park and vicinity, and around Independence and Dodson.

Family Turdidae. Thrushes, Solitaries, Stonechats, Bluebirds, etc.

Subfamily Turdinae. Thrushes.

Hylocichla mustelina (Gmelin). Wood Thrush.
Very common summer resident.

The Wood Thrush is the favorite songbird of most bird lovers, especially those who have not heard the Hermit Thrush. It arrives from the 23rd to 28th of April and leaves during the second and third weeks of September.

It nests during the middle of May in damp woods and timbered creek bottoms and ravines, and comes into the city freely to breed. Some places in town where it nests regularly are Penn Valley Park, Karnes Boulevard, 36th and Gillham, Armour and Paseo (a most unusual place), 46th and Gillham, Rockhill and Country Club regions, Swope Park and all the cemeteries.

Hylocichla fuscescens salicicola Ridgway. Willow Thrush.
Regular but rather rare migrant.

This subspecific form of the Veery is seen regularly during migration, but is never common. The spring records are between the 4th and 23rd of May; the fall records between September 10th and October 14th. It may be looked for in any wooded section of the county, high or low.

Hylocichla aliciae aliciae (Baird). Gray-cheeked Thrush.
Fairly common migrant.

The Gray-cheeked Thrush is present in all wooded sections

of the county, especially in the bluff and bottom regions, between the 1st and 20th of May and in late September. It is noted regularly in Swope Park and the upper Blue Valley and in the timbered sections of the Country Club district.

This Thrush frequently sings in the period of migration, particularly toward the end of its stay, but in very subdued tones.

HYLOCICHLA USTULATA SWAINSONI (Tschudi). Olive-backed Thrush.

Common migrant.

This species is often in full song during the latter days of its spring passage. It arrives during the first week of May, becoming more numerous from the 10th to 20th. At this time it may be looked for in all wooded regions, especially in the river and creek bottoms. Stragglers have been noted during the last days of May and there is one record of a singing male in Swope Park on June 7, 1916 (Shirling). The species is again present during the last half of September.

HYLOCICHLA GUTTATA PALLASI (Cabanis). Hermit Thrush.

Regular and not uncommon migrant.

The Hermit Thrush is the earliest in spring and latest in fall of all the migrant thrushes. It arrives in late March and is seldom seen after the middle of April. It is present again during the first three weeks of October.

It frequents the same wooded places as the others and may be looked for in Swope Park, the upper Blue Valley, in the bluff and bottom timber, near the Country Club, and many other less accessible places in the county.

We have no record of the singing of this species while migrating through this region.

PLANESTICUS MIGRATORIUS MIGRATORIUS (Linn.). Robin.

Abundant migrant, very common summer resident and rather rare but regular winter resident.

It is safe to say that there is not a day in the year when Robins are entirely absent from Jackson County. During the coldest periods of the most severe winters a few are always to be found in the dense shelter of the bottom timber where there is an abundance of wild fruit for food. In open and mild winters they are to be found even within the city.

The forerunners of the migrating throngs arrive from the

10th to the 20th of February, often much earlier, and by the last of the month or in early March migration is under way in earnest. Countless thousands continue to pass until the middle of April, by which time the local birds have young in the nest. The southward migration occupies October and early November. Small flocks may be seen in late November and early December that may move further south at the approach of zero weather, but always a few hardy birds remain.

The Robin has taken kindly to the advance of civilization and is steadily increasing in numbers despite the persecution of it in some southern states, where it is slaughtered in large numbers for food.

SIALIA SIALIS SIALIS (Linn.). Bluebird.

Very common summer resident; rather rare but regular winter resident.

Bluebirds have been seen in and near the city during the coldest periods of seven of the last thirteen winters. The first spring migrants arrive usually in the second week of February, and by the 20th or 25th are common. The bulk of the migrants pass through during the first two weeks of March. Flocks of southbound migrants have been noted as early as September 18th, but the largest flocks are seen about a month later.

SUMMARY.

DATES ON WHICH THE REGULAR SPRING MIGRANTS MAY BE LOOKED FOR

February 1 to 15
- Mallard
- Pintail
- Canada Goose
- Robin
- Bluebird

February 15 to 29
- Herring Gull
- Merganser
- Hooded Merganser
- Snow Goose
- White-fronted Goose
- Killdeer
- Turkey Vulture
- Red-tailed Hawk
- Meadowlark
- Rusty Blackbird
- Bronzed Grackle
- Purple Finch

March 1 to 7
- Gadwall
- Baldpate
- Green-winged Teal
- Redhead
- Canvas-back
- Lesser Scaup
- Ruddy Duck
- Blue Goose
- Mourning Dove
- Cooper's Hawk
- Kingfisher
- Cowbird
- Leconte's Sparrow
- Red-winged Blackbird
- Harris's Sparrow
- Field Sparrow
- Song Sparrow
- Swamp Sparrow
- Fox Sparrow
- Mockingbird

March 8 to 20
- Blue-winged Teal
- Shoveller
- Scaup Duck
- Great Blue Heron
- Coot
- Wilson's Snipe
- Greater Yellow-legs
- Marsh Hawk
- Phoebe
- Pine Siskin
- Savannah Sparrow
- Towhee
- Purple Martin
- Migrant Shrike
- Myrtle Warbler

March 21 to April 1
- Pied-billed Grebe
- White Pelican
- Sandhill Crane
- Yellow-bellied Sapsucker
- Chipping Sparrow
- Pipit
- Golden-crowned Kinglet
- Hermit Thrush

April 2 to 7
- King Rail
- Least Sandpiper
- Semipalmated Sandpiper
- Osprey
- Northern Flicker
- Vesper Sparrow
- Henslow's Sparrow
- White-crowned Sparrow
- White-throated Sparrow
- Rough-winged Swallow
- Louisiana Water-Thrush
- Brown Thrasher
- Ruby-crowned Kinglet

April 8 to 15
- Ring-billed Gull
- Franklin's Gull
- Bittern
- Green Heron
- Black-crowned Night Heron
- Pectoral Sandpiper
- Yellow-legs
- Broad-winged Hawk
- Chimney Swift
- Yellow-headed Blackbird
- Goldfinch
- Lincoln's Sparrow
- Barn Swallow
- Sycamore Warbler
- Western House Wren
- Short-billed Marsh Wren
- Prairie Marsh Wren
- Blue-gray Gnatcatcher

April 16 to 20
- Eared Grebe
- Virginia Rail
- Sora
- Florida Gallinule
- Baird's Sandpiper

April 16 to 20—Continued
Solitary Sandpiper
Buff-breasted Sandpiper
Spotted Sandpiper
Semipalmated Plover
Whip-poor-will
Lark Sparrow
Clay-colored Sparrow
Tree Swallow
Bank Swallow
Black and White Warbler
Prothonotary Warbler
Northern Parula Warbler

April 21 to 25
Wilson's Phalarope
Kingbird
Crested Flycatcher
Baltimore Oriole
Grasshopper Sparrow
Rose-breasted Grosbeak
Dickcissel
Cliff Swallow
Warbling Vireo
Yellow-throated Vireo
Orange-crowned Warbler
Tennessee Warbler
Oven-bird
Maryland Yellow-throat
Yellow-breasted Chat
Redstart
Wood Thrush

April 26 to 30
Least Tern
Black Tern
Upland Plover
Red-headed Woodpecker
Nighthawk
Ruby-throated Hummingbird
Orchard Oriole
Indigo Bunting
Scarlet Tanager
Summer Tanager

April 26 to 30—Continued
Red-eyed Vireo
Blue-headed Vireo
White-eyed Vireo
Blue-winged Warbler
Nashville Warbler
Yellow Warbler
Palm Warbler
Catbird

May 1 to 10
Forster's Tern
Common Tern
Least Bittern
Yellow-billed Cuckoo
Black-billed Cuckoo
Wood Pewee
Acadian Flycatcher
Traill's Flycatcher
Least Flycatcher
Bobolink
Philadelphia Vireo
Bell's Vireo
Worm-eating Warbler
Cerulean Warbler
Black-poll Warbler
Blackburnian Warbler
Black-throated Green Warbler
Grinnell's Water-Thursh
Kentucky Warbler
Wilson's Warbler
Willow Thrush
Gray-cheeked Thrush
Olive-backed Thrush

May 10 to 15
Olive-sided Flycatcher
Yellow-bellied Flycatcher
Cape May Warbler
Magnolia Warbler
Chestnut-sided Warbler
Mourning Warbler
Hooded Warbler

RESIDENTS

The following species occur in this vicinity throughout the entire year:

Bob-white
Red-tailed Hawk
Sparrow Hawk
Long-eared Owl
Barn Owl
Barred Owl
Screech Owl
Great-Horned Owl
Hairy Woodpecker
Downy Woodpecker
Red-bellied Woodpecker
Northern Flicker
Red-headed Woodpecker
Prairie Horned Lark
Blue Jay
Crow
Red-winged Blackbird
Goldfinch
English Sparrow
Cardinal
Carolina Wren
White-breasted Nuthatch
Tufted Titmouse
Chickadee
Robin
Bluebird

WINTER RESIDENTS

In addition to the above, the following species occur in this vicinity regularly during winter:

Rough-legged Hawk
Short-eared Owl
Thick-billed Red-wing
Northern Red-wing
Purple Finch
Pine Siskin
Lapland Longspur
Harris's Sparrow
Gambell's Sparrow
Tree Sparrow
Slate-colored Junco
Song Sparrow
Lincoln's Sparrow
Swamp Sparrow
Fox Sparrow
Myrtle Warbler
Brown Creeper
Golden-crowned Kinglet

IRREGULAR WINTER RESIDENTS

The following species occur in this vicinity irregularly in winter or during mild and open winters. Very rare species and occasional visitants are not included:

Merganser
Mallard
Green-winged Teal
Canada Goose
Mourning Dove
Marsh Hawk
Cooper's Hawk
Western Red-tail
Kingfisher
Yellow-bellied Sapsucker
Red-shafted Flicker
Cowbird
Meadowlark
Rusty Blackbird
Crossbill
White-crowned Sparrow
Field Sparrow
Towhee
Cedar Waxing
Northern Shrike
Migrant Shrike
Mockingbird
Winter Wren
Long-tailed Chickadee

SUMMER RESIDENTS

The following species nest in this vicinity. A very few species are included in the list on such evidence as birds carrying nesting material and being seen in the neighborhood all summer, and old birds feeding young or carrying food to nestlings. Species represented by only one nesting record are placed in the next list.

Pied-billed Grebe
Black Tern
Hooded Merganser
Blue-winged Teal
Bittern
Least Bittern
Great Blue Heron
Green Heron
King Rail
Virginia Rail
Sora
Florida Gallinule
Coot
Spotted Sandpiper
Killdeer
Bob-white
Mourning Dove
Turkey Vulture
Sharp-shinned Hawk
Cooper's Hawk
Red-tailed Hawk
Red-shouldered Hawk
Broad-winged Hawk
Sparrow Hawk
Barn Owl
Long-eared Owl
Barred Owl
Screech Owl
Great Horned Owl
Yellow-billed Cuckoo
Black-billed Cuckoo
Kingfisher
Hairy Woodpecker
Downy Woodpecker
Red-headed Woodpecker
Red-bellied Woodpecker

SUMMER RESIDENTS—Continued

Northern Flicker
Whip-poor-will
Nighthawk
Chimney Swift
Ruby-throated Hummingbird
Kingbird
Crested Flycatcher
Phoebe
Wood Pewee
Acadian Flycatcher
Prairie Horned Lark
Blue Jay
Crow
Cowbird
Red-winged Blackbird
Bell's Vireo
Meadowlark
Western Meadowlark
Orchard Oriole
Baltimore Oriole
Bronzed Grackle
Goldfinch
English Sparrow
Grasshopper Sparrow
Lark Sparrow
Chipping Sparrow
Field Sparrow
Towhee
Cardinal
Rose-breasted Grosbeak
Indigo Bunting
Dickcissel
Scarlet Tanager
Summer Tanager
Purple Martin
Cliff Swallow
Barn Swallow
Bank Swallow
Rough-winged Swallow
Migrant Shrike
Red-eyed Vireo
Warbling Vireo
Yellow-throated Vireo
White-eyed Vireo
Black and White Warbler
Prothonotary Warbler
Worm-eating Warbler
Blue-winged Warbler
Northern Parula Warbler
Yellow Warbler
Cerulean Warbler
Oven-bird
Louisiana Water-Thursh
Kentucky Warbler
Maryland Yellow-throat
Yellow-breasted Chat
Mockingbird
Catbird
Brown Thrasher
Carolina Wren
Western House Wren
Prairie Marsh Wren
White-breasted Nuthatch
Tufted Titmouse
Chickadee
Blue-gray Gnatcatcher
Wood Thrush
Robin
Bluebird

OCCASIONAL OR VERY RARE BREEDERS

Black-crowned Night Heron
Yellow-crowned Night Heron
Short-eared Owl
Least Flycatcher
Yellow-headed Blackbird
Vesper Sparrow
Savannah Sparrow
Henslow's Sparrow
Song Sparrow
Blue Grosbeak
Hooded Warbler
Short-billed Marsh Wren

FORMER BREEDERS

The following species formerly nested here, but have been driven out by the advance of civilization:

Least Tern
Mallard
Shoveller
Wood Duck (may have returned)
Canada Goose
Egret
Woodcock
Upland Plover
Prairie Chicken
Ruffed Grouse
Wild Turkey
Swallow-tailed Kite
Marsh Hawk
Bald Eagle
Osprey
Carolina Paroquet
Ivory-billed Woodpecker
Pileated Woodpecker
Poor-will
Raven

POSSIBLE BREEDERS

The following species probably breed here, but conclusive evidence to prove this is lacking:

Black Rail
Western Horned Owl
Traill's Flycatcher
Sycamore Warbler
Long-tailed Chickadee

EXTRALIMITAL: NOT INCLUDED

The following species have been recorded from the Lawrence region, but are not included in the list:

Mexican Cormorant
Black-necked Stilt
Lewis's Woodpecker
Say's Phoebe
Pine Grosbeak
Pale Goldfinch
Lark Bunting
Western Robin

MIGRANTS

In addition to the above-listed wintering migrants, both regular and irregular, which do not occur here in summer, the following species are found in this region only during migration. The more rare birds are marked with an asterisk.

Holboell's Grebe*
Eared Grebe
Loon*
Parasitic Jaeger*
Herring Gull
Ring-billed Gull
Laughing Gull*
Franklin's Gull
Bonaparte's Gull*
Caspian Tern*
Forster's Tern
Common Tern
Least Tern
Double-crested Cormorant
White Pelican
Red-breasted Merganser
Red-legged Black Duck
Black Duck
Gadwall
Baldpate
Cinnamon Teal*
Shoveller
Pintail
Wood Duck
Redhead
Canvas-back
Scaup Duck
Lesser Scaup Duck
Ring-necked Duck
Golden-eye
Barrow's Golden-eye*
Buffle-head
Old-squaw*
Scoter*
Surf Scoter*
Ruddy Duck
Snow Goose
Greater Snow Goose*
Blue Goose
White-fronted Goose
Hutchins's Goose
Whistling Swan*
Trumpeter Swan*
White-faced Glossy Ibis*
Whooping Crane*
Little Brown Crane
Sandhill Crane
Yellow Rail
Red Phalarope*
Northern Phalarope*
Wilson's Phalarope
Avocet
Woodcock*
Wilson's Snipe
Long-billed Dowitcher*
Stilt Sandpiper*
Knot*
Pectoral Sandpiper
White-rumped Sandpiper
Baird's Sandpiper
Least Sandpiper
Red-backed Sandpiper*

MIGRANTS—Continued

Semipalmated Sandpiper
Western Sandpiper
Sanderling
Marbled Godwit*
Hudsonian Godwit*
Greater Yellow-legs
Yellow-legs
Solitary Sandpiper
Willet*
Western Willet*
Upland Plover
Buff-breasted Sandpiper
Long-billed Curlew
Eskimo Curlew**
Black-bellied Plover*
Golden Plover
Semipalmated Plover
Piping Plover*
Ruddy Turnstone*
Mississippi Kite*
Swallow-tailed Kite
Goshawk*
Krider's Hawk*
Swainson's Hawk*
Golden Eagle
Bald Eagle
Duck Hawk*
Pigeon Hawk
Osprey
Saw-whet Owl*
Snowy Owl*
Western Nighthawk
Sennett's Nighthawk
Arkansas Kingbird*
Olive-sided Flycatcher
Yellow-bellied Flycatcher
Alder Flycatcher*
Horned Lark
Bobolink
Brewer's Blackbird*
Evening Grosbeak*
White-winged Crossbill*
Redpoll*
Snow Bunting*
Smith's Longspur
Chestnut-collared Longspur
Western Savannah Sparrow
Baird's Sparrow*
Western Grasshopper Sparrow
Leconte's Sparrow
White-throated Sparrow
Clay-colored Sparrow
Western Tree Sparrow
Western Field Sparrow
(may breed)
White-winged Junco*
Shufeldt's Junco
Montana Junco
Arctic Towhee*
Tree Swallow
Bohemian Waxwing*
Philadelphia Vireo
Blue-headed Vireo
Golden-winged Warbler*
Nashville Warbler
Orange-crowned Warbler
Tennessee Warbler
Cape May Warbler*
Magnolia Warbler
Chestnut-sided Warbler*
Bay-breasted Warbler*
Black-poll Warbler
Blackburnian Warbler
Black-throated Green Warbler
Pine Warbler
Palm Warbler
Prairie Warbler*
Grinnell's Water-Thrush
Connecticut Warbler*
Mourning Warbler
Wilson's Warbler
Pileolated Warbler*
Canada Warbler*
Pipit
Sprague's Pipit*
Red-breasted Nuthatch
Ruby-crowned Kinglet
Willow Thrush*
Gray-cheeked Thrush
Olive-backed Thrush
Hermit Thrush

BIBLIOGRAPHY

In compiling this list the author has had access only to his own books, and realizes that there are omissions. It is hoped, however, that all the important references are listed. For the sake of economy of space, titles are not given in the customary full bibliographical form.

Any additions that may be communicated by interested students will be appreciated, as it is desired to ultimately complete the list by including every published record from the Kansas City region.

1814. Lewis, M. and Clarke, W.—History of the Expedition under the command of Captains Lewis and Clarke, to the sources of the Missouri, thence across the Rocky Mountains and down the River Columbia to the Pacific Ocean. Performed during the years 1804-5-6. By order of the Government of the United States. In two volumes. Philadelphia. 1814.

This edition has not been handled by the writer. There are many subsequent editions, several of which are undesirable from the standpoint of the naturalist. The most desirable is the Harper Edition, edited with notes by Coues.

A few bird notes were recorded while the expedition was passing through the Kansas City region, and will be found under dates of June, 1804, and September, 1806.

1816. Brackenridge, H. M.—Journal of a Voyage Up the River Missouri; Performed in Eighteen Hundred and Eleven. By H. M. Brackenridge, Esq. Second Edition. Revised and Enlarged by the Author. Baltimore. 1816.

While this item is of no real value to the working ornithologist, it is cited mainly for its references to Thomas Nuttall. It is of great interest in touching on some particularities of this enthusiastic and absent-minded young naturalist on his first trip through this region. His next visit to the same territory, twenty-four years later, is of more importance to the ornithologist.

1817. Bradbury, J.—Travels in the Interior of America, in the Years 1809, 1810 and 1811. By John Bradbury. Liverpool, 1817.

This English botanist has recorded some interesting bird notes, and a few that are valuable and important. An authentic account is given of the nesting of the Canada Goose not far below what is now Sibley, Jackson County, Missouri. Notes on the Passenger Pigeon are scattered throughout the narrative.

Thomas Nuttall, who was later to acquire fame in the field of ornithology, and who twenty-four years later, in company with John K. Townsend, discovered the Harris's Sparrow in this region, was a member of Bradbury's party.

1823. Say, Thomas.—Account of an Expedition from Pittsburg to the Rocky Mountains, performed in the years 1819, and '20, by order of the Hon. J. C. Calhoun, Secy. of War; under the command of Major Stephen H. Long of the U. S. Top. Engineers. From the notes of Major Long, Mr. T. Say, and other gentlemen of the exploring party. Compiled by Edwin James, Botanist and Geologist of the Expedition. In two volumes. With an Atlas. Philadelphia. 1823.

A valuable reference. No serious student of the ornithology of this region can afford to miss reading this narrative, though the scientific matter is buried in foot-notes. The work is rare.

Thos. Say, with Peale and others of the party, collected material and notes on what is now the site of Kansas City, Missouri, and in the immediate vicinity of this point, on the Kaw River, the scientists had a painful and serious experience with Indians.

1839. Townsend, J. K.—Narrative of a Journey across the Rocky Mountains, to the Columbia River, and a Visit to the Sandwich Islands, Chili, etc. With a Scientific Appendix. By John K. Townsend. Philadelphia. 1839.

Townsend and Nuttall crossed Jackson County, Missouri, on April 28, 1834, over the frontier trail between Independence and Westport. Somewhere between the two points, probably in the Blue Valley, Nuttall took the type specimen of the Harris's Sparrow, which he named the Mourning Finch, *Fringilla querula*. Townsend does not mention the incident in his narrative because of the fact that Nuttall had not yet described the bird.

1839-1841. Maximilian, Prinz zu Wied.—Reise in das Innere Nord-America in den Jahren 1832 bis 1834 von Maximilian Prinz zu Wied. Coblenz. Two volumes. Vol. 1, 1839. Vol. 2, 1841.

This work contains much matter relative to the birds of the Missouri Valley, but it is largely omitted from the only American edition the writer has had access to. See Maximilian, 1904. It is understood that one of the few copies of the original edition in this country is owned in Topeka, Kansas.

1840. Nuttall, T.—A Manual of the Ornithology of the United States and of Canada. By Thomas Nuttall. Second Edition. Two Volumes. Boston. 1840.

The Harris's Sparrow is here given to science. The type locality is given as "a few miles to the west of Independence in Missouri."

1840-1844. Audubon, J. J.—The Birds of America, from drawings made in the United States and their Territories. By John James Audubon. New York and Philadelphia. Seven volumes. 1840-1844. Subsequent editions have eight volumes.

The last volume of this and the subsequent editions contains the birds discovered on the Missouri River trip in 1844. A discovery in this region was the Bell's Vireo, the original specimen of which was taken near St. Joseph, in the Missouri bottoms.

1843. Maximilian, Prince of Wied.—Travels in the Interior of North America. By Maximilian, Prince of Wied. With numerous engravings on wood, and a large map. Translated from the German by H. Evans Loyd. 81 colored plates, folio. London. 1843.

This rare and desirable English edition has not been examined.

1845. Fremont, John C.—Report of the Exploring Expedition to the Rocky Mountains in the year 1842 and to Oregon and north California in the years 1843-4. By Brev. Capt. J. C. Fremont, of the topographical engineers, under the orders of Col. J. J. Abert, chief of the topographical bureau. Printed by order of the House of Representatives. Washington. 1845.

This report contains little matter of interest to the bird student.

1848. Abert, J. W.—Notes on a Military Reconnoissance from Fort Leavenworth, in Missouri, to San Diego, in California. By W. H. Emory. Washington. 1848.

Lieut. Abert's notes are in appendix 6 (pp. 386-405), where twenty-six species are added to the Kansas list. This expedition, like others from Fort Leavenworth bound for the west over the Santa Fe trail, passed through what is now Kansas City, and the old frontier settlement of Westport.

1851. Harris, Edward.—List of Birds and Mammalia found on the Missouri River from Fort Leavenworth to Fort Union. Fifth Annual Report Smithsonian Institute for 1850, 1851, pp. 136-138.

This list is given as an appendix to a narrative by Thaddeus Culbertson, and is of interest as one of the sources of information relative to the occurrence in this region of species long since extirpated or extinct. The author was the patron and close friend of Audubon, and was with him on the memorable Missouri River trip.

1851. Kelley, Wm.—An Excursion to California over the Prairie, Rocky Mountains and Great Sierra Nevada, with a stroll through the diggings and ranches of that country. By William Kelley, J. P. 2 vols. London. 1851.

The writer of this narrative ascended the Kaw from its mouth, and noticed birds by the way. The bird matter is not of unusual interest or value.

1857. Brewer, Thomas M.—Smithsonian Contribution to Knowledge. North American Oology; Being an Account of the Habits and Geographical Distribution of the Birds of North America during their Breeding Season; with Figures and descriptions of their eggs. By Thomas M. Brewer, M. D. Part 1. Washington City. Published by the Smithsonian Institution. 1857. New York. D. Appleton & Co.

Two or three references to this region are found in the text of this work, only one part of which was published.

1858. Reports of Explorations and Surveys, to ascertain the most practicable and economical route for a railroad from the Mississippi River to the Pacific Ocean. Made under the direction of the Secretary of War, in 1853-6. Vol. IX. Birds. By Spencer F. Baird, Assistant Secretary Smithsonian Institution, with the co-operation of John Cassin and George N. Lawrence. Washington, D. C. 1858.

A rather large number of specimens taken in the Kansas City region were used in the preparation of this monumental work. Some material was collected by unknown soldiers stationed at Fort Leavenworth, and sent in by army officers. Among the scientists who collected in this region are Dr. F. V. Hayden, of Lieut. Warren's party; Dr. Kreuzfeldt, of Captain Gunnison's party; W. S. Wood, of Lieut. Bryan's party; Dr. J. G. Cooper, of W. M. Magraw's party (who secured many specimens in Jackson County), and Dr. Suckley. Specimens taken in this region by the Audubon party in 1844 are also tabulated.

1858. Maximilian Prinz zu Wied.—Verzeichniss der Vogel welche auf einer Reise in Nord-America beobachted wurden.<*Journal fuer Ornithologie*, 1858.

This item has not been seen; quoted from Mr. Widmann's book.

1860. Baird, S. F.—The Birds of North America; the description of species based on the collections in the Museum of the Smithsonian Institution. By Spencer F. Baird, assistant secretary of the Smithsonian Institution, with the co-operation of John Cassin, of the Academy of Natural Sciences of Philadelphia, and George N. Lawrence, of the Lyceum of Natural History of New York. With an Atlas of one hundred plates. Philadelphia: J. B. Lippincott & Co. 1860.

This is a reprint of Volume IX of the Pacific Railroad Surveys Reports, 1858, q. v.

1863. Hayden, F. D.—Report on the Geology and Natural History of the Upper Missouri River based on Explorations in 1855, 56 and 57.<*Trans. Amr. Phil. Soc.*, Vol. 12, 1863.

Dr. Hayden was one of the foremost members of the scientific organization connected with the Pacific Railroad Surveys, and contributed much material from the Kansas City region used by Prof. Baird in his epochal revision of North American birds.

1864. Baird, S. F.—Review of American Birds in the Museum of the Smithsonian Institution. By S. F. Baird. Part 1. North and Middle America. Washington. 1864. Smithsonian Misc. Coll. 181.

1865. Hoy, P. R.—Journal of an Exploration of Western Missouri in 1854, under the Auspices of the Smithsonian Institution.<(*Nineteenth*) *Annual Report Smiths. Inst.* (*for* 1864), 1865, pp. 431-438.

This is the first list of Missouri birds published. Notes and specimens were collected in the Kansas City region. This paper is the sole authority for the occurrence here of the Purple Sandpiper.

1872. Allen, J. A.—Notes of an Ornithological Reconnoissance of Portions of Kansas, Colorado, Wyoming and Utah.<*Bull. Mus. Comp. Zool.*, Vol. III, No. 6, July, 1872, pp. 113-183.

Contains notes of interest made during ten days' collecting at Fort Leavenworth. Three articles in the *American Naturalist* for 1872 contain a summary of this valuable paper.

1872. Snow, F. H.—A Catalogue of the Birds of Kansas contributed to the Kansas Academy of Science by Frank H. Snow, Professor of Natural History and Meteorology, in the University of Kansas, at Lawrence. Second edition, October, 1872. Kansas City, 1872. Pp. 16.

Lists 282 species.

1873. C[oues], E.—Ornithology of the West.<*American Naturalist*, vol. VII, 1873, pp. 221-223.

A review of J. A. Allen's paper listed above (1872).

1873. Snow, F. H.—Catalogue of the Birds of Kansas.<*Trans. Kans. State Board of Agriculture for* 1872, April, 1873, pp. 375-386.

Changes were made in this edition of the Snow list, but the total remains 282 species.

1874. Baird, Brewer, and Ridgway.—A History of North American Birds, by S. F. Baird, T. M. Brewer and R. Ridgway. Land Birds. Vols. I-III. Boston: Little, Brown & Company. 1874.

This standard reference cites a few specimens and records from this region.

1874. Coues, Elliott.—Birds of the Northwest. A Handbook of the Ornithology of the Region drained by the Missouri River and its Tributaries. By Elliott Coues, Captain and Assistant Surgeon, U. S. Army, Dept. of Int., U. S. Geol. Survey. Misc. Pub. No. 3. Washington. 1874.

This book is invaluable to the student of birds of the Missouri Valley.

1875. Snow, F. H.—A Catalogue of the Birds of Kansas contributed to the Kansas Academy of Science, by F. H. Snow, Professor of Natural History and Meteorology, in the University of Kansas, at Lawrence. Third Edition. Pamph. 14 pp., 1875.

These lists of Prof. Snow may be consulted with profit by the student of western Missouri birds. The number of species is here increased to 295.

1878. Coues, Elliott.—Birds of the Colorado Valley. A Repository of Scientific and Popular Information concerning North American Ornithology. By Elliott Coues. Part First. Passeres and Laniidae. Bibliographical Appendix. Washington. 1878.

See Coues, 1874. The appendix is especially valuable.

1879. Scott, W. E. D.—Notes on Birds observed during the Spring Migration in Western Missouri.<*Bull. Nuttall Ornith. Club.* Vol. IV, No. 3, July, 1879. Pp. 139-147.

This list was made in the Warrensburg, Johnson County, Missouri, neighborhood, and contains 148 species.

1882. Abert, Col. James W.—List of Birds observed on a March from Fort Leavenworth, Mo., to Santa Fe, N. M., in 1846 and 1847.<*Journal of the Cincinnati Soc. of Nat. Hist.*, Vol. V, 1882.

See Abert, 1848.

1882. Cooke, W. W.—Bird Migration in the Mississippi Valley.<*Forest and Stream.* Vol. XVIII, 1882.

Not seen.

1883. Cooke, W. W.—Bird Migration in the Mississippi Valley.< *Forest and Stream.* Vol. XIX, 1883, Nos. 15, 16, and 20.

Not seen.

1883-1885.—Cooke, W. W.—Mississippi Valley Migration.<*Ornithologist and Oologist.* Vol. VIII, No. 4 (April, 1883) to Vol. X, No. 12 (December, 1885).

Notes were contributed to this valuable series of articles by G. E. Stillwell, of Kansas City, Missouri. This observer is indicated in the text as No. 33.

1884. Baird, Brewer, and Ridgway.—The Water Birds of North America. Mem. Mus. Comp. Zool. Harvard College, XII and XIII. Issued in continuation of the publications of the Geological Survey of California. Vol. I-II. Boston: Little, Brown & Co. 1884.

See Baird, Brewer, and Ridgway, 1874.

1884. Cooke, W. W.—Distribution and Migration of *Zonotrichia querula.*<*Auk*, Vol. I, No. 3, 1884, pp. 332-337.

First atempt to define the limits of the range of Harris's Sparrow.

1885. Dyche, L. L.—The Yellow Rail (*Porzana noveboracensis*) in Kansas.<*Ornith. and Oologist*, Vol. 10, No. 11, 1885, p. 168.

Reports this bird first for the state from the Lawrence region.

1885. Goss, N. S.—Rare Summer Residents in Kansas.<*Auk*, Vol. II, No. 1, Jan., 1885.

Reports nesting of Coot, Mallard, Black Tern, Acadian Flycatcher, Black and White Warbler, and Blue Grosbeak in the neighborhood of Lawrence.

1885. Goss, N. S.—The Yellow Rail in Kansas.<*Auk*, Vol. II, No. 4, 1885, p. 385.

Same specimen reported from Lawrence by Prof. Dyche.

1886. American Ornithologists' Union.—The Code of Nomenclature and Check-list of North American Birds adopted by the American Ornithologists' Union, being the report of the committee of the union on classification and nomenclature. New York. 1886.

1886. Dyche, L. L.—The Red Crossbill (Loxia curvirostra stricklandi) in Kansas.<*Auk*, Vol. III, 1886, pp. 258-261.

Specimens were taken at Lawrence.

1886. Ganett, Albert.—Letter to editor.<*Hoosier Naturalist*, Vol. 2, No. 5, May, 1886, p. 71.

Reports a flight of Crossbills at Lawrence, Kansas, and mentions their feeding habits during a severe spell of winter.

1886. Lantz, D. E.—Mexican Crossbills in Kansas.<*Ornithologist and Oologist*, Vol. XI, No. 4, April, 1886, p. 59.

Reports this bird from the Lawrence region.

1886. Lemmon, Theo. G.—Food of Crows in Winter.<*Ornithologist and Oologist*, Vol. XI, No. 4, April, 1886, p. 59.

An observation from Westport, now included in Kansas City, Missouri.

1886. Lemmon, Theo. G.—Note on Kingbird feeding on potato beetle. <*Ornith. and Oologist*, Vol. XI, No. 5, May, 1886.

1886. Lemmon, Theo. G.—A Plea for our Birds.<*The Kansas City Live Stock Record and Farmer*, December 16, 1886.

Not seen.

1887. Lemmon, Theo. G.—Birds and their Relation to Agriculture. <*Ornith. and Ool.*, Vol. 12, No. 11, November, 1887, p. 180.

Mr. Lemmon was a resident of Westport, Jackson County, Missouri, and was an early investigator in the field of economic ornithology.

1887. Ridgway, Robert.—A Manual of North American Birds, by Robert Ridgway. Illustrated by 464 outline drawings of generic characters. Philadelphia: J. B. Lippincott Company. 1887.

A second edition of this important work was issued in 1896.

1888. Bennett, A. L.—Surf Scoter in Kansas.<*Auk*. Vol. V, 1888, p. 203.

Note from Lawrence.

1888. Cooke, W. W.—Report on Bird Migration in the Mississippi Valley in the Years 1884 and 1885. By W. W. Cooke. Bull. No. 2, U. S. Dept. of Agri., Div. Econ. Ornith. Washington. 1888.

Notes from this region were contributed by Prof. Snow, of Lawrence, and G. E. Stillwell, of Kansas City.

1888. Lighton, Louis R.—Original Bird Notes.<*West American Scientist*, Vol. 4, No. 33, January, 1888, p. 15.

Gives dates of arrival of seven common species at Lawrence, Kansas.

1888. Snow, F. H.—Aechinophorus occidentalis in Kansas.<*Auk*, Vol. V, 1888, pp. 201-202.

Reports Western Grebe taken on Kaw River at Lawrence.

1889. Barrows, Walter B.—The English Sparrow (Passer domesticus) in North America, especially in its Relation to Agriculture. Prepared under the direction of Dr. C. Hart Merriam, Ornithologist. By Walter B. Barrows, Assistant Ornithologist. Bull. I, Div. Economin Ornith. and Mammalogy, Dept. of Agri. Washington. 1889.

A small amount of material from this region was used in this bulletin.

1890. Dwight, Jonathan, Jr.—The Horned Larks of North America. <*Auk*, Vol. VII, 1890, pp. 138-158.

A few specimens from this region were handled in the preparation of this paper.

1890. W. H. P.—The Lark Sparrow.<*The Literary Companion* (Kansas City, Kansas, paper) Vol. II, N. S., No. 2, February, 1890, p. 2.

1891. Goss, N. S.—History of the Birds of Kansas. By N. S. Goss. Topeka, Kansas. 1891.

Contains much of value to students of the birds of this region.

1891. Kellog, Vernon L.—Some Rarae Aves among Kansas Ducks. <*The Kansas City Scientist*, Vol. 5, No. 8, August, 1891, pp. 125-126.

Reports the capture of rare species in the Lawrence neighborhood.

1891. Trouslot, R. B.—A Handsome Present.<*The Kansas City Scientist*, Vol. 5, May, 1891, p. 77.

This is an editorial reference to a nest and set of six eggs of the Migrant Shrike.

1892. Bendire, Chas.—Life Histories of North American Birds, with special reference to their breeding habits and eggs, with twelve lithographic plates. By Charles Bendire, Captain U. S. Army (Retired), Honorary Curator of the Department of Oology, U. S. National Museum, Member of A. O. U. Smithsonian Institution. United States National Museum. Special Bulletin No. 1. Washington. 1892.

Contains references to this and surrounding territory. Vide Bendire, 1895.

1892. Snow, F. H.—The Pacific Eider in Kansas.<*Auk*, Vol. IX, 1892, p. 198.

This extralimital species was taken on the Kaw River at Lawrence.

1893. Coues, Elliott.—History of the Expedition under the Command of Lewis and Clark to the source of the Missouri River, thence across the Rocky Mountains and down the River Columbia to the Pacific Ocean, performed during the years 1804-05-6, by order of the Government of the United States. In four volumes. New York. Francis P. Harper. 1893.

Even this late edition is difficult to find. Dr. Coues' notes make this a very desirable edition for the ornithologist. See the *editio princeps*, 1814.

1893. Fisher, A. K.—The Hawks and Owls of the United States in their relation to Agriculture. Prepared under the direction of Dr. C. Hart Marriam, Ornithologist, by A. K. Fisher, M. D., Assistant Ornithologist. Washington. 1893.

This model economic report tabulates a few specimens from Jackson County, Missouri, and surrounding territory.

1893. Jordan, David Starr.—A Manual of the Vertebrate Animals of the Northern United States, including the district north and east of the Ozark Mountains, south of the Laurentian Hills, north of the southern boundary of Virginia, and east of the Missouri River. By David Starr Jordan. Seventh Edition. Chicago. A. C. McClurg & Company. 1894.

1894. Coale, Henry K.—Ornithological Notes on a Flying Trip through Kansas, New Mexico, Arizona, and Texas.<*Auk*, Vol. XI, No. 3, 1894, pp. 215-222.

A short paragraph is devoted to a few common species in the immediate neighborhood of Leavenworth, Kansas.

1895. American Ornithologists' Union Check-list of North American Birds, prepared by a committee of the American Ornithologists' Union. Second and revised edition. New York. 1895.

1895. Barrows, Walter B., and Schwarz, E. A.—The Common Crow of the United States. Bull. No. 6, Dept. Agri. Div. Ornith. and Mammalogy. Washington. 1895.

The only local reference is to Douglas County, Kansas, Crow roosts.

1895. Bendire, C.—Life Histories of North American Birds, from the Parrots to the Grackles, with special reference to their breeding habits and eggs, by Charles Bendire, Captain and Brevet Major U. S. Army (Retired), Honorary Curator of the Department of Oology of the United States National Museum, Member of the A. O. U.; with seven lithographic plates. Washington. 1895.

See Bendire, 1892.

1895. Bryant, John A.—Clark's Nutcracker in Eastern [Western] Missouri.<*Auk*, Vol. XII, No. 1, 1895, p. 82.

Records an extralimital species from Kansas City.

1895. Bryant, Jno. A.—Clark's Nutcracker.<*Auk*, 1895, No. 2, 1895, pp. 181-182.

Further notes relative to the occurrence of this bird in this and surrounding territory.

1895. Jones, Lynds.—Record of the work of the Wilson Ornithological Chapter of the Agassiz Association for 1893 and 1894, on the Mnioltiltidae.<*Wilson Bulletin* Nos. 4 and 5, 1895.

Local data is contributed to this report by John A. Bryant, of Kansas City.

1896. Harris, J. H. Jr.—The Florida Gallinule.<*Nidologist*, Vol. III, No. 9, May, 1896, p. 95.

Amateur notes.

1896. Harris, J. H. Jr.—Some Observations on the Spotted Sandpiper. <*Osprey*, Vol. 1, No. 1, pp. 7-8.

Amateur notes.

1896. Wilson, Sidney S.—Harris's Sparrow in Spring Dress in Autumn.<*Auk*, Vol. XIII, No. 2, 1896.

A note from St. Joseph, Missouri.

1896. Wilson, Sidney S.—Field Notes.<*Wilson Bulletin*, No. 8, May 30, 1896.

Mr. Wilson was a St. Joseph, Missouri, observer.

1897. JOHNSON, WALTER ADAMS.—War on the Red-headed Woodpecker. <*Osprey*, Vol. I, No. 11, 1897, p. 147.

Editorial comment on article in the *Kansas City Star*.

1897. WILSON, SIDNEY S.—Letter to editor.<*Nidologist*, Vol. IV, No. 7, March, 1897, p. 81.

An observation from St. Joseph, Missouri, on the manner of the Chimney Swift securing twigs for its nest.

1897. WILSON, SIDNEY, S.—Chimney Swifts Breaking off Twigs with their Feet.<*Osprey*, Vol. I, No. 9, May, 1897, p. 122.

1897. WILSON, SIDNEY S.—Notes from Missouri.<*Wilson Bulletin*, No. 13, 1897, p. 18.

Notes from Buchanan County.

1898. DAVIE, OLIVER.—Nests and Eggs of North American Birds. By Oliver Davie, Author of American Methods in the Art of Taxidermy. Fifth Edition. Revised, Augmented and Illustrated. Columbus. 1898.

1898. WILSON, SIDNEY S.—General Notes.<*Wilson Bulletin*, No. 18, Jan., 1898, pp. 9-10.

1898. WILSON, SIDNEY S.—General Notes.<*Wilson Bulletin*, No. 22, Sept., 1898, p. 69.

1899. LANTZ, D. E.—A Review of Kansas Ornithology.<*Trans. Kans. Acad. Science* (*for* 1896-1897), Vol. XVI, July, 1899, pp. 224-276.

Contains a bibliography (pp. 224-244) and an annotated list of 351 species (pp. 244-276). This is a carefully prepared and valuable paper, but unfortunately seems to be little known among students of western Missouri birds, and the Public Library of Kansas City does not own a copy. The volume of *Transactions* containing this study may be had from the Secretary of the Academy at Lawrence.

1899. WILSON, SIDNEY S.—General Notes.<*Wilson Bulletin*, No. 27, July, 1899, p. 62.

1900. AUDUBON, M. R.—Audubon and his Journals, with Zoological and other notes by Elliott Coues. By Maria R. Audubon. New York. 1900. Two volumes.

In that portion of these historical journals dealing with the Missouri River trip, is to be found a list of birds of the greatest interest and importance to local students. An account is also given of the discovery of Bell's Vireo near St. Joseph, and the supposed discovery of Harris's Sparrow in the same neighborhood.

1900. Jones, Lynds, and Dawson, W. L.—A Summer Reconnoissance in the West.<*Wilson Bulletin*, No. 33, October, 1900, pp. 10-11.

Contains a horizon made in the Kansas City region.

1901. Ridgway, Robert.—Bulletin of the United States National Museum No. 50. The Birds of North and Middle America; A Descriptive Catalogue of the Higher Groups, Genera, Species, and Subspecies of Birds known to occur in North America, from the Arctic Lands to the Isthmus of Panama, the West Indies and other Islands of the Caribbean Sea, and the Galapagos Archipelago. By Robert Ridgway, Curator, Division of Birds. Part I. Family Fringillidae—The Finches. Washington: Government Printing Office. 1901.

Seven volumes of this monumental work, the standard of reference, have appeared to 1918. The early volumes are out of print and in constant demand. Students located in western Missouri will find these indispensable volumes only in a few private libraries.

1901. Snow, F. H.—A Catalogue of the Birds of Kansas (fifth edition) with Notes upon Preceding Catalogues and Lists. By Francis H. Snow, Ph. D., LL.D., of the University of Kansas.< *Trans. Kans. Acad. Science*, Vol. XVIII. 1901.

This is Prof. Snow's last list and contains 342 specimens. Reprinted May, 1903.

1902. Ridgway, Robert.—Birds of North and Middle America. Part II. Family Tanagridae—The Tanagers. Family Icteridae—The Troupials. Family Coerebidae—The Honey Creepers. Family Mniotiltidae—The Wood Warblers. Washington. 1902.

See Ridgway, 1901.

1903. Cooke, Wells W.—Some New Facts about the Migration of Birds. Reprint from Yearbook of Dept. of Agri. for 1902. Washington. 1903.

Contains valuable matter relative to this region.

1903. Coues, Elliott.—Key to North American Birds. Containing a concise account of every species of living and fossil bird at present known from the continent north of the Mexican and United States boundary, inclusive of Greenland and Lower California, with which are incorporated General Ornithology: an outline of the structure and classification of birds; and Field Ornithology, a manual of collecting, preparing, and preserving birds. The Fifth Edition (entirely revised) exhibiting the nomenclature of the American Ornithologists' Union, and including descriptions of additional species. In two volumes. Vol. I (II). By Elliott Coues, A. M., M. D., Ph. D., etc., etc. Boston. Dana Estes and Company. 1903.

1904. Bruner, Walcott, and Swenk.—A Preliminary Review of the Birds of Nebraska with Synopses. By Lawrence Bruner, Robert H. Wolcott, and Myron H. Swenk. Omaha, Nebraska. N. D.

A useful paper on the avifauna of adjacent territory on the northwest.

1904. Cooke, Wells W.—Distribution and Migration of North American Warblers. By Wells W. Cooke, Assistant, Biological Survey. U. S. Dept. of Agri. Div. of Biological Survey—Bulletin No. 18. Washington. 1904.

Invaluable to the local student.

1904. Maximilian, Prince of Wied.—Travels in the Interior of North America in the Years 1832 to 1834. Vol. 22 of Early Western Travels, Edited by Reuben Gold Thwaites. Cleveland, Ohio. The Arthur H. Clark Company. 1904.

See Maximilian, 1839-1841.

1904. Ridgway, Robert.—The Birds of North and Middle America. Part III. Washington. 1904.

See Ridgway, 1901.

1904. Snow, F. H.—Two Additions to the Bird Fauna of Kansas.< *Auk*, Vol. XXI, 1904, p. 284.

Reports the Parasitic Jaeger and White-winged Crossbill from Lawrence.

1906. Cooke, Wells W.—Distribution and Migration of North American Ducks, Geese and Swans. By Wells W. Cooke, Assistant, Biological Survey—Bulletin No. 26. Washington. 1906.

Contains much valuable data from the Mississippi and Missouri Valleys.

1906. Snow, Francis H.—Two Birds New to the Avifauna of Kansas. <*Auk*, Vol. XXIII, 1906, p. 106.

Red Phalarope taken four miles from Lawrence. Total species and subspecies for state is now 349.

1906. Wetmore, Alex.—Christmas Bird Census at Lawrence, Kansas. <*Bird Lore*, Vol. 13, No. 1, 1906, p. 22.

1907. Anderson, R. M.—The Birds of Iowa. *Proc. Davenport Acad. Science.* Vol. XI. Pp. 125-417. Davenport, Iowa. March, 1907.

Useful reference treating of the birds of adjoining territory on the north.

1907. Chapman, Frank M.—The Warblers of North America. By Frank M. Chapman with the Co-operation of Other Ornithologists. New York. D. Appleton & Co. 1907.

1907. Ridgway, Robert.—The Birds of North and Middle America. By Robert Ridgway. Part IV. Washington. 1907.

See Ridgway, 1901.

1907. Widmann, Otto.—A Preliminary Catalogue of the Birds of Missouri. By Otto Widmann. Transactions of the St. Louis Academy of Science. Vol. XVII, No. 1, November 16, 1907. Pp. 1-288.

Missouri ornithologists are very fortunate in having access to Mr. Widmann's vast fund of knowledge of the birds of this region. This report is one of the best state lists extant. It may be procured from the Secretary of the Academy at St. Louis.

1908. American Ornithologists' Union.—The Code of Nomenclature adopted by the American Ornithologists' Union. Revised Edition. New York. July, 1908.

1908. Bailey, Florence Merriam.—Handbook of Birds of the Western United States, including the Great Plains, Pacific Slope, and Lower Rio Grande Valley. By Florence Merriam Bailey. Third edition. Revised. Boston and New York. Houghton Mifflin Company. N. D. (1908.)

1908. Smithson, A. F.—Christmas Census for Kansas City, Missouri. <*Bird Lore*, Vol. 14, No. 1, 1908, p. 34.

1908. Walmsley, H. R.—Christmas Census for Kansas City, Missouri. <*Bird Lore*, Vol. 14, No. 1, 1908, p. 34.

1909. Walmsley, H. R.—Christmas Census for Kansas City, Missouri. <*Bird Lore*, Vol. 16, No. 1, 1909, p. 35.

1909. Wetmore, Alex.—Fall Notes from Eastern Kansas.<*Condor*, Vol. XI, No. 5, Sept., 1909.

A valuable paper based on two collecting trips in the Lawrence region.

1909. Wetmore, Alex.—Two Records from Eastern Kansas.<*Condor*, Vol. XI, No. 6, Nov., 1909.

Notice of specimens of Lewis's Woodpecker and the Western Robin taken in the Lawrence neighborhood.

1909. Worcester, Uri B.—The Towhee in Kansas.<*Oologist*, Vol. XXVI, No. 12, 1909, pp. 226-227.

Amateur notes.

1910. American Ornithologists' Union.—Check-list of North American Birds. Prepared by a Committee of the American Ornithologists' Union. New York. 1910.

1910. Cooke, Wells W.—The Type Locality of *Vireo belli.*<*Auk*, Vol. XXVII, No. 3, July, 1910.

Establishes the type locality at St. Joseph, Missouri.

1910. Cooke, Wells W.—The Migratory Movements of Birds in Relation to the Weather. Reprint from Yearbook of Department of Agriculture for 1910.

1910. Walmsley, H. R.—Christmas Census for Kansas City, Missouri. <*Bird Lore*, Vol. 16, No. 1, 1910.

1911. Cooke, Wells W.—Distribution of the American Egrets. U. S. Dept. Agri., Bureau Biol. Surv.—Circ. No. 84, Sept. 13, 1911.

Contains notes from the Lawrence region.

1911. Evans, Logan.—*Colymbus holboelli* in Kansas.<*Auk*, Vol. XXVIII, 1911, p. 107.

Reports a specimen of this grebe taken on the Kaw River near Lawrence.

1911. Howell, Arthur H.—Birds of Arkansas. By Arthur H. Howell. Bull. Biol. Surv. No. 38. October 12, 1911. Washington, D. C.

Useful reference for students of western Missouri birds.

1911. Ridgway, Robert.—The Birds of North and Middle America. By Robert Ridgway. Part V. 1911.

See Ridgway, 1901.

1911. Shirling, A. E.—Christmas Census for Kansas City, Mo.<*Bird Lore*, Vol. 17, No. 1, 1911, p. 40.

1912. Bolt, Benj. F.—Capture of a Golden Eagle at Kansas City, Mo. <*Auk*, Vol. XXIX, No. 1, 1912, p. 102.

Reports a late capture of this bird near the city.

1912. Chapman, Frank M.—Handbook of Birds of Eastern North America, with Introductory Chapters on the study of Birds in Nature. By Frank M. Chapman, Curator of Ornithology in the American Museum of Natural History, etc., etc. Revised edition. New York and London. D. Appleton and Company. 1912.

1912. Chapman and Reed.—Color Key to North American Birds, with Bibliographical Appendix. By Frank M. Chapman, with upwards of 800 Drawings, by Chester A. Reed. Revised Edition. New York. D. Appleton & Co. 1912.

Contains a valuable faunal bibliography, referring to this and surrounding territory.

1913. Bunker, C. D.—The Birds of Kansas.<*The Kansas University Science Bulletin*, Vol. VII, No. 5, June, 1913, pp. 137-158.

There are 379 species and subspecies here listed, annotated, for the most part, as to relative abundance in eastern, central, and western Kansas. A valuable paper.

1913. Cooke, Wells W.—Distribution and Migration of North American Herons and their Allies. By Wells W. Cooke, Assistant, Biological Survey. U. S. Dept. Agri., Biol. Surv.-Bull. No. 45. Washington. 1913.

Contains data from this region.

1913. Smithson, A. F.—Some Birds from Southwestern Missouri.< *Auk*, Vol. XXX, No. 3, July, 1913, p. 437.

Notes on Bewick's Wren, Evening Grosbeak, and others from Warrensburg, Missouri.

1913. Walmsley, H. R., and Mrs. Walmsley.—Christmas Census for Kansas City, Mo.<*Bird Lore*, Vol. 18, No. 1, 1913, p. 35.

1913. Wetmore, Alex.—Notes on Certain Kansas Birds.<*Condor*. Vol. XV, No. 3, May, 1913, pp. 120-121.

Report on avian conditions in the Lawrence region during the severe winter of 1911-1912.

1914. Cooke, Wells W.—Distribution of North American Rails and their Allies. Bull. Dept. Agri. No. 128. September 25, 1914.

Contains data from this and surrounding territory.

1914. Ridgway, Robert.—The Birds of North and Middlle America. By Robert Ridgway. Part VI. 1914.

See Ridgway, 1901.

1914. Wetmore, Alex.—A New Bird for the Kansas List.<*Condor*, Vol. XVI, No. 2, March, 1914, p. 92.

Reports *Planesticus migratorius achrusterus* from Lawrence, Kansas.

1915. Cooke, Wells W.—Preliminary Census of Birds of the United States. Bull. Dept. Agri. No. 187. Washington. February 11, 1915.

Contains estimates from a few observers in this region.

1915. Cooke, Wells W.—Bird Migration. U. S. Dept. Agri. Bull. No. 185. Washington. April 17, 1915.

1915. Cooke, Wells W.—Distribution of North American Gulls and their Allies. U. S. Dept. Agri. Bull. No. 292. Professional Paper. Washington, D. C. October 25, 1915.

1915. Donahue, Ralph.—Queer Nesting Places and Early Arrival of Slate-colored Junco.<*Oologist*, Vol. XXXII, No. 11, Nov., 1915, p. 188.

1915. Wright, Albert Hazen.—Early Records of the Wild Turkey, V. <*Auk*, Vol. XXXII, 1915, pp. 354-358.

A list of early publications containing references to the occurrence of the Wild Turkey in this region is cited.

1916. Anonymous [Otto Bohl].—Bird Life of the North Side.< *The North Side Booster*, Vol. 1, No. 26, Dec. 27, 1916.

Notes in a Kansas City Trade Journal by an old-time observer on former conditions in the old part of the city.

1916. Cooke, Wells W.—Second Annual Report of Bird Counts in the United States, with discussion of Results. Dept. Agri. Bull. No. 396. Washington. October 23, 1916.

See "Preliminary Census," Cooke, 1915.

1916. Donahue, Ralph.—Easy Food for the Red-head.<*Oologist*, Vol. XXXIII, No. 11, Oct., 1916, p. 178.

1916. Hoffmann, Ralph.—The Pomarine Jaeger and the Purple Gallinule in Western Missouri.<*Auk*, Vol. XXXIII, No. 2, April, 1916, p. 196.

Reports two birds new to the Kansas City region, one of which is new to the state.

1916. Kalmbach, E. R.—Winter Crow Roosts. By E. R. Kalmbach, Assistant Biologist, Biological Survey. Reprint from Yearbook of Dept. Agri. for 1915. Washington. 1916.

1916. K. C. Bird Club Members.—Christmas Census for Kansas City, Missouri.<*Bird Lore*, Vol. XIX, No. 1, 1917, pp. 37-38.

1916. Ridgway, Robert.—The Birds of North and Middle America. By Robert Ridgway. Part VII.

See Ridgway, 1901.

1917. Donahue, Ralph.—The Phoebe.<*Oologist*, Vol. XXXIV, No. 2, Jan., 1917, p. 20.

1917. Donahue, Ralph.—The Black-capped Chickadee.<*Oologist*, Vol. XXXIV, No. 8, Oct., 1917, p. 152.

1917. Donahue, Ralph.—Bird Accidents.<*Oologist*, Vol. XXXIV, No. 8, 1917, p. 153.

1917. Bunker, C. D.—American Goshawks in Kansas.<*Auk*, Vol. XXXIV, Jan., 1917, pp. 87-88.

Notes an unusual invasion of these birds in the severe winter of 1916-1917.

1917. Hoffmann, Ralph.—Christmas Bird Census for Kansas City, Missouri.<*Bird Lore*, Vol. 19, No. 1, 1917, pp. 35-35.

Forty-two species and 3,740 individuals.

1917. Shirling, A. E.—Christmas Bird Census for Pleasant Hill, Missouri.<*Bird Lore*, Vol. 19, No. 1, 1917, p. 35.

1917. Hyde, A. Sidney.—Some Rare Birds of Eastern Kansas.<*Oologist*, Vol. XXXIV, No. 9, Sept., 1917.

1917. Shirling, A. E.—The Season. (Letter from Kansas City, Mo.) <*Bird Lore*, Vol. 19, 1917, p. 154.

1917. Shirling, A. E.—Summer Birds of Swope Park.<*Bird Lore*, Vol. 19, 1917, p. 273.

This is a brief notice of an elaborate ecological study prepared by Mr. Shirling, but which has not yet been published. It will be a valuable contribution to the subject and should be referred to by local students as well as others.

1918. Harris, Harry.—Notes from the Kansas City Region. The Season.<*Bird Lore*, Vol. 20, 1918, pp. 165-166.

1918. Harris, Harry.—Notes from the Kansas City region. The Season.<*Bird Lore*, Vol. 20, 1918, pp. 431-432.

1919. Harris, Harry.—Historical Notes on the Harris's Sparrow (*Zonotrichia querula*)<*Auk*, Vol. XXXVI, No. 2, 1919, pp. —.

INDEX.

A

Acadian Flycatcher, 280, 336, 338
Acanthis linaria linaria, 291
Acipiter cooperi, 261
velox, 260
Actitis macularius, 254
Aechmophorus occidentalis, 223
Aegialitis meloda, 256
semipalmata, 256
Agelaius phoeniceus arctolegus, 287
fortis, 286
phoeniceus, 285
predatorius, 285
Aix sponsa, 235
Alaudidae, 282
Alcedinidae, 271
Alcyones, 271
Alder Flycatcher, 281, 340
Aluco pratincola, 266
Aluconidae, 266
Ammodramus bairdi, 295
savannarum australis, 295
bimaculatus, 296
Anas platyrhynchos, 231
rubripes rubripes, 232
tristis, 232
Anatidae, 230
Anatinae, 231
Anhinga anhinga, 228
Anhingidae, 228
Anser albifrons gambeli, 239
Anseres, 230
Anserinae, 238
Anthus rubescens, 325
spraguei, 325
Antrostomus vociferus, 275
carolinensis, 275
Aphrizidae, 256
Aquila chrysaetos, 264
Archibuteo ferrugineus, 264
lagopus sancti-johannis, 263
Archilochus colubris,277
Arctic Towhee, 304, 340
Ardea herodias herodias, 242
Ardeidae, 241
Ardeinae, 242
Arenaria interpres morinella, 256
Arenariinae, 256
Arkansas Kingbird, 278, 340
Arquatella maritima maritima, 250
Asio flammeus, 267
wilsonianus, 267
Astragalinus tristis tristis, 292
Astur atricapillus atricapillus, 261
Avocet, 248, 339

B

Baeolophus bicolor, 330
Baird's Sandpiper, 250, 335, 339
Baird's Sparrow, 295, 340
Bald Eagle, 264, 338, 340
Baldpate, 233, 335, 339
Baltimore Oriole, 289, 336, 338
Bank Swallow, 309, 336, 338
Barn Owl, 266, 336, 337
Barn Swallow, 308, 335, 338
Barred Owl, 268, 336, 337
Barrow's Golden-eye, 237, 339
Bartramia longicauda, 253
Bay-breasted Warbler, 319, 340
Bell's Vireo, 313, 336, 338
Belted Kingfisher, 271
Bewick's Wren, 327
Bibliography, 341
Bittern, 241, 335, 337
Least, 242, 336, 337

Blackbird, Brewer's, 290, 340
Red-winged, 285. 335, 336, 338
Rusty, 289, 335, 337
Yellow-headed, 284, 335, 338
Black-bellied Plover, 255, 340
Black-billed Cuckoo, 271, 336, 337
Blackburnian Warbler, 319, 336, 340
Black-crowned Night Heron, 243, 336, 338
Black Duck, 232, 339
Red-legged, 232, 339
Black-poll Warbler, 319, 326, 340
Black Rail, 246, 339
Black Tern, 228, 336, 337
Black-throated Blue Warbler, 317
Black-throated Green Warbler, 320, 336, 340
Black and White Warbler, 314, 336, 388
Bluebird, 334, 335, 336, 338
Blue Goose, 239, 335, 339
Blue-gray Gnatcatcher, 331, 335, 338
Blue Grosbeak, 305, 338
Blue-headed Vireo, 313, 336, 340
Blue Jay, 283, 336, 338
Blue-winged Teal, 233, 335, 337
Blue-winged Warbler, 315, 336, 338
Bobolink, 284, 336, 340
Bob-white, 256, 336, 337
Bohemian Waxwing, 309, 340
Bombycilla cedrorum, 310
garrula, 309
pallidiceps, 309
Bonaparte's Gull, 226, 339
Bonasa umbellus umbellus, 257
Botaurinae, 241
Botaurus lentiginosus, 241
Branta canadensis canadensis, 240
hutchinsi, 240
Brewer's Blackbird, 290, 340
Broad-winged Hawk, 262, 335, 337
Bronzed Grackle, 290, 335, 338
Brown Creeper, 329, 337
Brown Thrasher, 326, 335, 338
Bubo virginianus pallescens, 269
virginianus, 269
Buff-breasted Sandpiper, 254, 336, 340
Buffle-head, 237, 339
Bunting Indigo, 306, 336, 338
Lazuli, 306
Bunting, Snow, 293, 340
Burrowing Owl, 269
Buteo borealis borealis, 261
calurus, 262
harlani, 262
krideri, 262
lineatus lineatus, 262
platypterus, 263
swainsoni, 263
Buteonidae, 259
Butorides virescens virescens, 243

C

Calcarius lapponicus lapponicus, 293
ornatus, 294
pictus, 293
Calidris leucophea, 252
Campephilus principalis, 272
Canada Goose, 240, 335, 337, 338
Canada Warbler, 324, 340
Canutus canutus rufus, 249
Canvas-back, 235, 335, 339
Cape May Warbler, 317, 336, 340
Caprimulgi, 275
Caprimulgidae, 275
Cardinal, 304, 336, 338
Cardinalis cardinalis cardinalis, 304
Carolina Paroquet, 270, 338
Carolina Wren, 327, 336, 338
Carpodacus purpureus purpureus, 291
Caspian Tern, 227, 339
Catbird, 326, 336, 338
Cathartes aura septentrionalis, 259
Cathartidae, 259
Catoptrophorus semipalmatus inornatus, 253
semipalmatus, 253
Cedar Waxwing, 310, 337
Centurus carolinus, 274
Cepphi, 224
Cerchneis sparvaria sparvaria, 265
Certhia familiaris americana, 329
Certhiidae, 329
Cerulean Warbler, 318, 336, 338
Ceryle alcyon, 271
Chaetura pelagica, 277
Chaeturinae, 277

Charadriidae, 255
Charadrius dominicus dominicus, 255
Charitonetta albeola, 237
Chat, Yellow-breasted, 323, 336
Chaulelasmus streperus, 232
Chen caerulescens, 239
hyperboreus hyperboreus, 238
nivalis, 239
Chestnut-collared Longspur, 294, 340
Chestnut-sided Warbler, 319, 336, 340
Chickadee, 330, 336, 338
Long-tailed, 330, 337, 339
Chicken, Prairie, 257, 338
Chimney Swift, 277, 335, 338
Chipping Sparrow, 299, 335, 338
Chondestes grammacus grammacus, 297
Chordeiles virginianus henryi, 276
sennetti, 277
virginianus, 276
Chuck-will's-widow, 275
Cinnamon Teal, 234, 339
Circus hudsonicus, 260
Cistothorus stellaris, 328
Clamatores, 278
Clangula, clangula americana, 236
islandica, 236
Clarke's Nutcracker, 283
Clay-colored Sparrow, 300, 336, 340
Cliff Swallow, 308, 336, 338
Coccyges, 270
Coccyzinae, 270
Coccyzus americanus americanus, 270
erythrophthalmus, 271
Colaptes auratus luteus, 274
cafer collaris, 274
Colinus virginianus virginianus, 256
Columbae, 258
Columbidae, 258
Colymbi, 223
Colymbidae, 223
Colymbus holboelli, 223
nigricollis californicus, 223
Common Tern, 227, 336, 339
Compsothlypis americana usneae, 316
Connecticut Warbler, 322, 340
Conuropsis carolinensis, 270
ludoviciana, 270
Cooper's Hawk, 261, 335, 337
Coot, 247, 335, 337
Cormorant, Double-crested, 229, 339
Corthylo calendula calendula, 331
Corvidae, 282
Corvinae, 283
Corvus brachyrhynchos brachyrhynchos, 283
corax sinuatus, 283
Coturnicops noveboracensis, 246
Cowbird, 284, 335, 337, 338
Crane, Little Brown, 244, 339
Sandhill, 244, 335, 339
Whooping, 244, 339
Creciscus jamaicensis, 246
Creeper, Brown, 329, 337
Crested Flycatcher, 278, 336, 338
Crossbill, 291, 337, 340
White-winged, 291
Crow, 283, 336, 338
Cryptoglaux acadia acadia, 268
Cuculi, 270
Cuculidae, 270
Cuckoo, Black-billed, 271, 336, 337
Yellow-billed, 270, 336, 337
Curlew, Eskimo, 255, 340
Long-billed, 254, 340
Cyanocitta cristata cristata, 283
Cygninae, 241
Cypseli, 277

D

Dafila acuta, 234
tzitzimoa, 234
Dendroica aestiva aestiva, 371
caerulescens, 317
castanea, 319
cerulea, 318
coronata, 317
discolor, 321
dominica albilora, 320
fusca, 319
magnolia, 318
pensylvanica, 319
palmarum palmarum, 321
striata, 319
tigrina, 317
vigorsi, 320
virens, 320
Dickcissel, 306, 336, 338
Dolichonyx oryzivorus, 284

Double-crested Cormorant, 229, 339
Dove, Mourning, 258, 335, 237
Western Mourning, 259
Dowitcher, 249
Long-billed, 249, 339
Downy Woodpecker, 272, 336, 337
Dryobates pubescens medianus, 272
villosus, 272
Duck, Black, 232, 339
Harlequin, 237
Lesser Scaup, 236, 335, 339
Red-legged Black, 232, 339
Ring-necked, 236, 339
Ruddy, 238, 335, 339
Scaup, 235, 335, 339
Wood, 235, 338, 339
Duck Hawk, 265, 340
Dumetella carolinensis, 326

E

Eagle, Bald, 264, 338, 340
Golden, 264, 340
Eared Grebe, 223, 335, 339
Ectopistes migratorius, 258
Egret, 242, 338
Snowy, 243
Egretta candidissima candidissima, 243
Elanoides forficatus, 259
Empidonax flaviventris, 280
minimus, 281
trailli alnorum, 281
trailli, 281
virescens, 280
English Sparrow, 292, 336, 338
Ereunetes mauri, 251
pusillus, 251
Erismatura jamaicensis, 238
Eskimo Curlew, 255, 340
Euphagus carolinus, 289
cyanocephalus, 290
Evening Grosbeak, 290, 340

F.

Falco columbarius columbarius, 265
richardsoni, 265
mexicanus, 265
peregrinus anatum, 265
sparverius sparverius, 265
Falcon, Prairie, 265
Falcones, 259
Falconidae, 265
Falconinae, 265
Ferruginous Rough-leg, 264
Field Sparrow, 300, 335, 337, 338
Finch, Purple, 291, 335, 337
Flicker, Northern, 274, 335, 336, 338
Red-shafted, 274, 337
Florida caerulea, 243
Florida Gallinule, 246, 335, 337
Flycatcher, Acadian, 280, 336, 338
Alder, 281, 340
Crested, 278, 336, 338
Least, 281, 336, 338
Olive-sided, 280, 336, 340
Traill's, 281, 336, 339
Yellow-bellied, 280, 336, 340
Forster's Tern, 227, 336, 339
Fox Sparrow, 303, 335, 337
Franklin's Gull, 226, 335, 339
Fringillidae, 290
Fulica americana, 247
Fulicinae, 247
Fuligulinae, 235

G

Gadwell, 232, 335, 339
Gallinae, 256
Gallinago delicata, 248
Gallinula chloropus cachinnanus, 246
galeata, 246
Gallinule, Florida, 246, 335, 337
Purple, 246
Gallinulinae, 246
Gambel's Sparrow, 298, 337
Garrulinae, 282
Gavia immer, 224
Gaviidae, 224
Geothlypis trichas trichas, 323
Gnatcatcher, Blue gray, 331, 335, 338
Godwit, Hudsonian, 252, 340
Marbled, 252, 340
Golden-crowned Kinglet, 331, 335, 337
Golden Eagle, 264, 340
Golden-eye, 236, 339
Barrow's, 237, 339

Golden Plover, 255, 340
Golden-winged Warbler, 315, 340
Goldfinch, 292, 335, 336, 338
Goose, Blue, 239, 335, 339
Canada, 240, 337, 338
Greater Snow, 239, 339
Hutchins's, 240, 339
Snow, 238, 335, 339
White-fronted, 239, 339
Goshawk, 261, 340
Crackle, Bronzed, 290, 335, 338
Grasshopper Sparrow, 295, 336, 338
Gray-cheeked Thrush, 332, 336, 340
Great Blue Heron, 242, 335, 337
Great Horned Owl, 269, 336, 337
Greater Snow Goose, 239, 339
Greater Yellow-legs, 252, 335, 340
Green Heron, 243, 335, 337
Green-winged Teal, 233, 335, 337
Grebe, Eared, 223, 335, 339
Holboell's, 223, 339
Pied-billed, 223, 335, 337
Western, 223
Grinnell's Water-Thrush, 321, 336, 340
Grosbeak, Blue, 305, 338
Evening, 290, 340
Rose-breasted, 305, 336, 338
Grouse, Ruffed, 257, 338
Grues, 244
Gruidae, 244
Grus, americana, 244
canadensis, 244
mexicana, 244
Guiraca caerulea caerulea, 305
Gull, Bonaparte's, 226, 339
Franklin's, 226, 335, 339
Herring, 225, 339
Laughing, 226, 339
Ring-billed, 225, 335, 339

H

Hairy Woodpecker, 272, 336, 337
Haliaeetus leucocephalus leucocephalus, 364
Harlan's Hawk, 262
Harlequin Duck, 237
Harris's Sparrow, 297, 335, 337
Hawk, Broad-winged, 263, 335
Cooper's, 261, 335, 337
Duck, 265, 340
Harlan's, 262
Krider's, 262, 340
Marsh, 260, 335, 337, 338
Pigeon, 265, 340
Red-shouldered, 262, 337
Red-tailed, 261, 335, 336, 337
Richardson's Pigeon, 265
Rough-legged, 263, 337
Ferruginous Rough-leg, 264
Sharp-shinned, 260, 337
Sparrow, 265, 336, 337
Swainson's, 263, 340
Western Red-tail, 262, 337
Helmitheros vermivorus, 314
Helodromas solitarius solitarius, 253
Henslow's Sparrow, 296, 335, 338
Herelda hyemalis, 237
Hermit Thrush, 333, 335, 340
Herodias egretta, 242
Herodii, 241
Herodiones, 241
Heron, Black-crowned Night, 243, 335, 338
Great Blue, 242, 335, 337
Green, 243, 335, 337
Little Blue, 243
Yellow-crowned Night, 243, 338
Herring Gull, 225, 335
Hesperiphona vespertina vespertina, 290
Hirundinidae, 307
Hirundo erythrogastra, 308
Histrionicus histrionicus, 237
Holboell's Grebe, 223, 339
Hooded Merganser, 230, 335, 337
Hooded Warbler, 324, 336, 338
Horned Lark, 282, 340
Hoyt's Horned Lark, 282
Hudsonian Godwit, 252, 340
Hummingbird, Ruby-throated, 277, 336, 337
Hutchins's Goose, 240, 339
Hydrochelidon nigra surinamensis, 228
Hydroprogne caspia imperator, 227
Hylocichla aliciae aliciae, 332
fuscesens salicicola, 332
guttata pallasi, 333
mustelina, 332
ustulata swainsoni, 333

I

Ibides, 241
Ibididae, 241
Ibis, White-faced Glossy, 241, 339
Icnornis martinicus, 246
Icteria virens virens, 323
Icteridae, 284
Icterus galbula, 289
Icterus spurius, 289
Ictinia mississippiensis, 260
Indigo Bunting, 306, 336, 338
Iridoprocne bicolor, 308
Ivory-billed Woodpecker, 272, 338
Ixobrychus exilis, 242

J

Jaeger, Long-tailed, 225
Parasitic. 224, 339
Pomarine, 224
Jay, Blue, 283, 336, 338
Junco aikeni, 301
hyemalis connectens, 301
hyemalis, 301
montanus, 302
Junco, Montana, 302, 340
Shufeldt's, 301, 340
Slate-colored, 301, 337
White-winged, 301, 340

K

Kentucky Warbler, 322, 336, 338
Killdeer, 255, 335, 337
Kingbird, 278, 336, 338
Arkansas, 278, 340
Kingfisher, Belted, 271, 335, 337
Kinglet, Golden-crowned, 331, 335, 337
Ruby-crowned, 331, 335, 340
King Rail, 245, 335, 337
Kite, Swallow-tailed, 259, 338, 340
Mississippi, 260, 340
Kittiwake, 225
Knot, 249, 339
Krider's Hawk, 262, 340

L

Laniidae, 311
Lanius borealis, 311
ludovicianus excubitorides, 311
migrans, 311
Lanivireo flavifrons, 312
solitarius solitarius, 313
Lapland Longspur, 293, 337
Laridae, 225
Larinae, 225
Lark, Horned, 282, 340
Hoyt's Horned, 282
Prairie Horned, 282, 336, 338
Lark Sparrow, 297, 336, 338
Larus argentatus, 225
delawarensis, 225
franklini, 226
philadelphia, 226
atricilla, 226
Laughing Gull, 226, 339
Lazuli Bunting, 306
Least Bittern, 242, 336, 337
Least Flycatcher, 281, 336, 338
Least Sandpiper, 251, 335, 339
Least Tern, 227, 336, 338, 339
Leconte's Sparrow, 296, 335, 340
Lesser Scaup Duck, 236, 335, 339
Limicolae, 247
Limosa fedoa, 252
haemastica, 252
Lincoln's Sparrow, 302, 335, 337
Little Blue Heron, 243
Little Brown Crane, 244, 339
Lobipes lobatus, 247
Long-billed Dowitcher, 249, 339
Long-billed Curlew, 254, 340
Long-eared Owl, 267, 336, 337
Longipennes, 224
Longspur, Chestnut-collared, 294, 340
Lapland, 293, 337
McCown's, 294
Smith's, 293, 340
Long-tailed Chickadee, 330, 337, 339
Long-tailed Jaeger, 225
Loon, 224, 339
Lophodytes cucullatus, 230
Louisiana Water-Thrush, 322, 335, 338
Loxia curvirostra minor, 291
leucoptera, 291

M

Macrochires, 275
Macrorhamphus griseus griseus, 249
griseus scolopaceus, 249

Magnolia Warbler, 318, 336, 340
Magpie, 282
Mallard, 231, 335, 337, 338
Marbled Godwit, 252, 340
Mareca americana, 233
Maryland Yellow-throat, 323, 336, 338
Marila affinis, 236
americana, 235
collaris, 236
marila, 235
valisineria, 235
Marsh Hawk, 260, 335, 337, 338
Martin, Purple, 307, 335, 338
McCown's Longspur, 294
Meadowlark, 288, 335, 337, 338
Western, 288, 338
Melanerpes erythrocephalus, 273
Melanitta deglandi, 238
perspicillata, 238
Meleagridae, 258
Meleagris gallopavo silvestris, 258
Melospiza georgiana, 303
lincolni lincolni, 302
melodia melodia, 302
Merganser, 230, 335, 337
Hooded, 230, 335, 337
Red-breasted, 230, 339
Merginae, 230
Mergus americanus, 230
serrator, 230
Micropalama himantopus, 249
Micropodidae, 277
Migrant Shrike, 311, 335, 337, 338
Mimidae, 325
Mimus polyglottos polyglottos, 325
Mississippi Kite, 260, 340
Mniotilta varia, 314
Mniotiltidae, 314
Mockingbird, 325, 335, 337, 338
Molothrus ater ater, 284
Montana Junco, 302, 340
Motacillidae, 325
Mountain Plover, 256
Mourning Dove, 258, 335, 337
Western, 259
Mourning Warbler, 323, 336, 340
Myiarchus crinitus, 278
Myiochanes virens, 280
Myrtle Warbler, 317, 335, 337

N

Nannus hiemalis hiemalis, 328
Nashville Warbler, 315, 336, 340
Nettion carolinense, 233
Nighthawk, 276, 336, 338
Sennet's, 277, 340
Western, 276, 340
Northern Flicker, 274, 335, 336, 338
Northern Parula Warbler, 316, 336, 338
Northern Phalarope, 247, 339
Northern Red-wing, 287, 337
Northern Shrike, 311, 337
Nucifraga columbiana, 283
Numenius americanus, 254
borealis, 255
Nutcracker, Clarke's, 283
Nuthatch, Red-breasted, 329, 340
White-breasted, 329, 336, 338
Nuttallornis borealis, 280
Nyctanassa violacea, 243
Nyctea nyctea, 269
Nycticorax nycticorax naevius, 243

O

Odontophoridae, 256
Oidemia americana, 237
fusca, 238
perspicillata, 238
Old-squaw, 237, 339
Olive-backed Thrush, 333, 336, 340
Olive-sided Flycatcher, 280, 336, 340
Olor buccinator, 241
columbianus, 241
Oporornis agilis, 322
formosus, 322
philadelphia, 323
Orange-crowned Warbler, 316, 336, 340
Oriole, Baltimore, 289, 336, 338
Orchard, 289, 336, 338
Orchard Oriole, 289, 336, 338
Oscines, 282
Osprey, 266, 335, 338, 340

Otocoris alpestris alpestris, 282
hoyti, 282
praticola, 282
Otus asio asio, 268
naevius, 268
Owl, Barn, 266, 336, 337
Barred, 268, 336, 337
Burrowing, 269
Great Horned, 269, 336, 337
Long-eared, 267, 336, 337
Saw-whet, 268, 340
Screech, 268, 336, 337
Short-eared, 267, 337, 338
Snowy, 269, 340
Western Horned, 269, 339
Ovenbird, 321, 336, 338
Oxyechus vociferus, 255

P

Palm Warbler, 321, 336, 340
Paludicolae, 244
Pandion haliaetos carolinensis, 266
Pandionidae, 266
Parasitic Jaeger, 224, 339
Paridae, 330
Paroquet, Carolina, 270, 338
Parula, Warbler, Northern, 316, 336
Passenger Pigeon, 258
Passer domesticus, 292
hostilis, 292
Passerculus sandwichensis alaudinus, 295
savanna, 294
Passerella iliaca iliaca, 303
Passers, 278
Passerherbulus henslowi henslowi, 296
lecontei, 296
Passerina amoena, 306
cyanea, 306
Pectoral Sandpiper, 250, 335, 339
Pelecanidae, 229
Pelecanus erythrorhynchos, 229
Pelican, White, 229, 335, 339
Pelidna alpina sakhalina, 251
Penthestes atricapillus atricapillus, 330
septentrionalis, 330
Petrochelidon albifrons albifrons, 308
lunifrons lunifrons, 308
Pewee, Wood, 280, 336, 338
Phalacrocoracidae, 229
Phalacrocorax auritus auritus, 229
Phalaenoptilus nuttalli nuttalli, 276
Phalarope, Northern, 247, 339
Red, 247, 339
Wilson's, 248, 336, 339
Phalaropodidae, 247
Phalaropus fulicarius, 247
Phasiani, 256
Philadelphia Vireo, 312, 336, 340
Philohela minor, 248
Phloeotomus pileatus abieticola, 273
Phoebe, 279, 335, 338
Pica pica hudsonia, 282
Pici, 272
Picidae, 272
Pied-billed Grebe, 223, 335, 337
Pigeon Hawk, 265, 340
Pigeon, Passenger, 258
Pileated Woodpecker, 273, 338
Pileolated Warbler, 324, 340
Pine Siskin, 292, 335, 337
Pine Warbler, 320, 340
Pintail, 234, 335, 339
Pipilo erythrophthalmus erythrophthalmus, 304
maculatus arcticus, 304
Piping Plover, 256, 340
Pipit, 325, 335, 340
Sprague's, 325, 340
Piranga erythromelas, 307
Piranga rubra rubra, 307
Pisobia bairdi, 250
fuscicollis, 250
maculata, 250
minutilla, 251
Planesticus migratorius migratorius, 333
Plectrophenax nivalis nivalis, 293
Plegadis guarauna, 241
Plover, Black-bellied, 255, 340
Golden, 255, 340
Mountain, 256
Piping, 256, 340
Semipalmated, 256, 336, 340
Upland, 253, 336, 338, 340
Podasocys montanus, 256
Podilymbus podiceps, 223

Polioptilinae, 331
Polioptilla caerulea caerulea, 331
Pomarine Jaeger, 224
Poocetes gramineus gramineus, 294
Poor-will, 276, 338
Porzana carolina, 245
Prairie Chicken, 257, 338
Prairie Falcon, 265
Prairie Horned Lark, 282, 336, 338
Prairie Marsh Wren, 328, 335, 338
Prairie Warbler, 321, 340
Progne subis subis, 307
Prothonotaria citrea, 314
Prothonotary Warbler, 314, 336, 338
Psittacidae, 270
Psittaci, 270
Purple Finch, 291, 335, 337
Purple Gallinule, 246
Purple Martin, 307, 335, 338
Purple Sandpiper, 250
Pygopodes, 223

Q

Querquedula cyanoptera, 234
discors, 233
Quiscalus quiscula aeneus, 290

R

Rail Black, 246, 339
King, 245, 335, 337
Virginia, 245, 335, 337
Yellow, 246, 339
Ralli, 245
Rallidae, 245
Rallinae, 245
Rallus elegans, 245
virginianus, 245
Raptores, 259
Raven, 283, 338
Recurvirostra americana, 248
Recurvirostridae, 248
Red Phalarope, 247, 339
Red-backed Sandpiper, 251, 339
Red-bellied Woodpecker, 274, 336, 337
Red-breasted Merganser, 230, 339
Red-breasted Nuthatch, 329, 340
Red-eyed Vireo, 312, 336, 338
Redhead, 235, 335, 339
Red-headed Woodpecker, 273, 336, 337
Red-legged Black Duck, 232, 339
Redpoll, 291, 340
Red-shafted Flicker, 274, 337
Red-shouldered Hawk, 262, 337
Redstart, 324, 336
Red-tailed Hawk, 261, 335, 336, 337
Western, 262, 337
Red-winged Blackbird, 285, 335, 336, 338
Regulinae, 331
Regulus calendula calendula, 331
satrapa satrapa, 331
Rhynchophanes mccowni, 294
Richardson's Pigeon Hawk, 265
Ring-billed Gull, 225, 335, 339
Ring-necked Duck, 236, 339
Riparia riparia, 309
Rissa tridactyla tridactyla, 225
Robin, 333, 336, 338
Rose-breasted Grosbeak, 305, 336, 338
Rough-legged Hawk, 263, 337
Rough-winged Swallow, 310, 335, 338
Ruby-crowned Kinglet, 331, 335, 340
Ruby-throated Hummingbird, 277, 336, 337
Ruddy Duck, 238, 335, 339
Ruddy Turnstone, 256, 340
Ruffed Grouse, 257, 338
Rusty Blackbird, 289, 335, 337

S

Sanderling, 252, 340
Sandhill Crane, 244, 335, 339
Sandpiper, Baird's, 250, 335, 339
Buff-breasted, 254, 336, 340
Least, 251, 335, 339
Pectoral, 250, 335, 339
Purple, 250
Red-backed, 251, 339
Semipalmated, 251, 335, 340
Solitary, 253, 336, 340
Spotted, 254, 336, 337
Stilt, 249, 339
Western, 251, 340
White-rumped, 250, 339
Sapsucker, Yellow-bellied, 273, 335, 337
Sarcorhamphi, 259

Savannah Sparrow, 294, 335, 338
Western, 295
Saw-whet Owl, 268, 340
Sayornis phoebe, 279
Scarlet Tanager, 307, 336, 338
Scaup Duck, 235, 335, 339
Scolopacidae, 248
Scoter, 237, 339
Surf, 238, 339
White-winged, 238
Screech Owl, 268, 336, 337
Seiurus aurocapillus, 321
motacilla, 322
noveboracensis notabilis, 321
Semipalmated Plover, 256, 336, 340
Semipalmater Sandpiper, 251, 335, 340
Sennett's Nighthawk, 277, 340
Setochalcis vocifera vocifera, 275
Setophaga ruticilla, 324
Sharp-shinned Hawk, 260, 337
Short-billed Marsh Wren, 328, 335, 338
Short-eared Owl, 267, 337, 338
Shoveller, 234, 335, 338, 339
Shrike, Migrant, 311, 335, 337, 338
Northern, 311, 337
White-rumped, 311
Shufeldt's Junco, 301, 340
Sialia sialis sialis, 334
Siskin, Pine, 292, 335, 337
Sitta canadensis, 329
carolinensis carolinensis, 329
Sittidae, 329
Slate-colored Junco, 301, 337
Smith's Longspur, 293, 340
Snipe, Wilson's, 248, 335, 339
Snow Bunting, 293, 340
Snow Goose, 238, 335, 339
Snowy Egret, 243
Snowy Owl, 269, 340
Solitary Sandpiper, 253, 336, 340
Song Sparrow, 302, 335, 337, 338
Sora, 245, 335, 337
Sparrow, Baird's, 295, 340
Chipping, 299, 335, 338
Clay-colored, 300, 336, 340
English, 292, 336, 338
Field, 300, 335, 337, 338
Western, 300, 340
Fox, 303, 335, 337
Gambel's, 298, 337
Grasshopper, 295, 336, 338
Western, 296, 340
Harris's, 297, 335, 337
Henslow's, 296, 335, 338
Lark, 297, 336, 338
Leconte's, 296, 335, 340
Lincoln's, 302, 335, 337
Savannah, 294, 335, 338
Western, 295, 340
Song, 302, 335, 337, 338
Swamp, 303, 335, 337
Tree, 299, 337
Western, 299, 340
Vesper, 294, 335, 338
White-crowned, 298, 335, 337
White-throated, 298, 335, 340
Sparrow Hawk, 265, 336, 337
Spatula clypeata, 234
Speotyto cunicularia hypogaea, 269
Sphyrapicus varius varius, 273
Spinus pinus, 192
Spiza americana, 306
Spizella monticola monticola, 299
ochracea, 299
pallida, 300
passerina passerina, 299
pusilla arenacea, 300
pusilla, 300
Spotted Sandpiper, 254, 336, 337
Sprague's Pipit, 325, 340
Squatarola squatarola, 255
cynosurae, 255
Steganopodes, 228
Steganopos tricolor, 248
Stelgidopteryx serripennis, 309
Stercorariidae, 224
Stercorarius longicaudus, 225
parasiticus, 224
pomarinus, 224
Sterna antillarum, 227
caspia, 227
forsteri, 227
hirundo, 227
Sturnella magna magna, 288
neglecta, 288
Sterninae, 227

Sternula antillarum antillarum, 227
Stilt Sandpiper, 249, 339
Stringes, 266
Strigidae, 267
Strix varia varia, 268
Summer Tanager, 307, 336, 338
Surf Scoter, 238, 339
Swainson's Hawk, 263, 340
Swallow, Bank, 309, 336, 338
Barn, 308, 335, 338
Cliff, 308, 336, 338
Rough-winged, 309, 335, 338
Tree, 308, 336, 340
Swallow-tailed Kite, 259, 338, 340
Swamp Sparrow, 303, 335, 337
Swan, Trumpeter, 241, 339
Whistling, 241, 339
Swift, Chimney, 277, 335, 338
Sycamore Warbler, 320, 335, 339
Sylviidae, 331

T

Tanager, Scarlet, 307, 336, 338
Summer, 307, 336, 338
Tangaridae, 307
Teal, Blue-winged, 233, 337
Cinnamon, 234, 339
Green-winged, 233, 335, 337
Telmatodytes pulustris iliacus, 328
Tennessee Warbler, 316, 336, 340
Tern, Black, 228, 336, 337
Caspian, 227, 339
Common, 227, 336, 339
Forster's, 227, 336, 339
Least, 227, 336, 338, 339
Tetraonidae, 257
Thick-billed Red-wing, 286, 337
Thrasher, Brown, 326, 335, 338
Thrush, Gray-cheeked, 332, 336, 340
Hermit, 333, 335, 340
Olive-backed, 333, 336, 340
Willow, 332, 336
Wood, 332, 336, 338
Thryomanes bewicki bewicki, 327
Thryothorus ludovicianus ludovicianus, 327
Tringa canutus, 249
Titmouse, Tufted, 330, 336, 338
Totanus flavipes, 252
melanoleucus, 252
Towhee, 304, 335, 337, 338
Arctic, 304, 340
Toxostoma rufum, 326
Traill's Flycatcher, 281, 336, 339
Tree Sparrow, 299, 337
Western, 299
Tree Swallow, 308, 336, 340
Trochili, 277
Trochilidae, 277
Troglodytes aedon parkmani, 327
Troglodytidae, 327
Trumpeter Swan, 241, 339
Tryngites subruficollis, 254
Tufted Titmouse, 330, 336, 338
Turdidae, 332
Turninae, 332
Turkey Vulture, 259, 335, 337
Turkey, Wild, 258, 338
Turnstone, Ruddy, 256, 340
Tympanuchus americanus americanus, 257
Tyrannidae, 278
Tyrannus tyrannus, 278
verticalis, 278
Tyto alba pratincola, 266

U

Upland Plover, 253, 336, 338, 340

V

Vermivora, celata celata, 316
chrysoptera, 315
peregrina, 316
pinus, 315
rubricapilla rubricapilla, 315
Vesper Sparrow, 294, 335, 338
Vireo belli belli, 313
griseus griseus, 313
Vireo, Bell's, 313, 336, 338
Blue-headed, 313, 336, 340
Philadelphia, 312, 336, 340
Red-eyed, 312, 336, 338
Warbling, 312, 336, 338
White-eyed, 313, 336, 338
Yellow-throated, 312, 336, 338

Vireonidae, 312
Vireosylva gilva gilva, 312
olivacea, 312
philadelphica, 312
Virginia Rail, 245, 335, 337
Vulture, Turkey, 259, 335, 337

W

Warbler, Bay-breasted, 319, 340
Blackburnian, 319, 336, 340
Black-poll, 319, 336, 340
Black-throated Blue, 317
Black-throated Green, 320, 336, 340
Black and White, 314, 336, 338
Blue-winged, 315, 336, 338
Canada, 324, 340
Cape May, 317, 336, 340
Cerulean, 318, 336, 338
Chestnut-sided, 319, 336, 340
Connecticut, 322, 340
Golden-winged, 315, 340
Hooded, 324, 336, 338
Kentucky, 322, 336, 338
Magnolia, 318, 336, 340
Mourning, 323, 336, 340
Myrtle, 317, 335, 337
Nashville, 315, 336, 340
Northern Parula, 316, 336, 338
Orange-crowned, 316, 336, 340
Palm, 321, 336, 340
Pileolated, 324, 340
Pine, 320, 340
Prairie, 321, 340
Prothonotary, 314, 336, 338
Sycamore, 320, 335, 339
Tennessee, 316, 336, 340
Wilson's, 324, 336, 340
Worm-eating, 314, 336, 338
Yellow, 317, 336, 338
Warbling Vireo, 312, 336, 338
Water-Thrush, Grinnell's, 321, 336, 340
Louisiana, 322, 335, 338
Water-Turkey, 228
Waxwing, Bohemian, 309, 340
Cedar, 310, 337
Western Field Sparrow, 300, 340
Western Grasshopper Sparrow, 296, 340
Western Grebe, 223
Western Horned Owl, 269, 339
Western House Wren, 327, 335, 338
Western Meadowlark, 288, 338
Western Mourning Dove, 259
Western Nighthawk, 276, 340
Western Red-tail, 262, 337
Western Sandpiper, 251, 340
Western Savannah Sparrow, 295, 340
Western Tree Sparrow, 299, 340
Wistern Willet, 253, 340
Whip-poor-will, 275, 336, 338
Whistling Swan, 241, 339
White-breasted Nuthatch, 329, 336, 338
White-crowned Sparrow, 298, 335, 337
White-eyed Vireo, 313, 336, 338
White-faced Glossy Ibis, 241, 339
White-fronted Goose, 239, 335, 339
White Pelican, 229, 335, 339
White-rumped Sandpiper, 250, 339
White-rumped Shrike, 311
White-throated Sparrow, 298, 335, 340
White-winged Crossbill, 291, 340
White-winged Junco, 301, 340
White-winged Scoter, 238
Whooping Crane, 244, 339
Wild Turkey, 258, 338
Willet, 253, 340
Western, 253, 340
Willow Thrush, 332, 336, 340
Wilsonia canadensis, 324
citrina, 324
pusilla pileolata, 324
pusilla, 324
Wilson's Phalarope, 248, 336, 339
Wilson's Snipe, 248, 335, 339
Wilson's Warbler, 324, 336, 340
Winter Wren, 328, 337
Woodcock, 248, 338, 339
Wood Duck, 235, 338, 339
Woodpecker, Downy, 272, 336, 337
Hairy, 272, 336, 337
Ivory-billed, 272, 338
Northern Pileated, 273, 338
Red-bellied, 274, 336, 337
Red-headed, 273, 336, 337
Wood Pewee, 280, 336, 338
Wood Thrush, 332, 336, 338
Worm-eating Warbler, 314, 336, 338

Wren, Bewick's, 327
Carolina, 327, 336, 338
Prairie Marsh, 328, 335, 338
Short-billed Marsh, 328, 335, 338
Western House, 327, 335, 338
Winter, 328, 337

X

Xanthocephalus xanthocephalus, 284

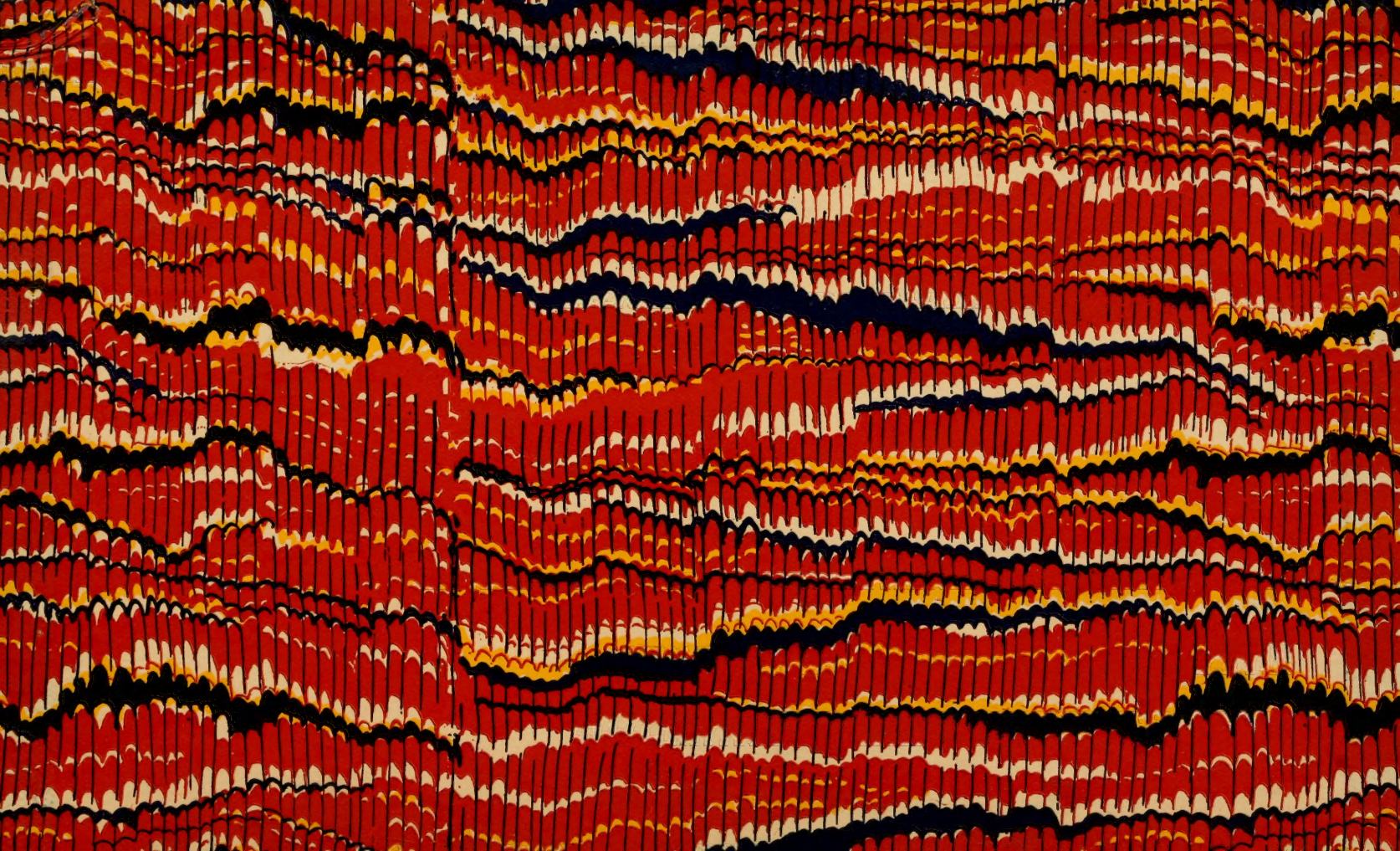
Y

Yellow-bellied Flycatcher, 280, 336, 340
Yellow-bellied Sapsucker, 273, 335, 337
Yellow-billed Cuckoo, 270, 336, 337
Yellow-breasted Chat, 323, 336, 338
Yellow-crowned Night Heron, 243, 338
Yellow-headed Blackbird, 284, 335, 338
Yellow-legs, 252, 335, 340
Greater, 252, 335, 340
Yellow Rail, 246, 339
Yellow-throat, Maryland, 323, 336, 338
Yellow-throated Vireo, 312, 336, 338
Yellow Warbler, 317, 336, 338

Z

Zamelodia ludoviciana, 305
Zenaidura macroura carolinensis, 258
marginella, 259
Zonotrichia albicollis, 298
leucophrys gambeli, 298
leucophrys, 298
querula, 297

Issued February 27, 1919



SMITHSONIAN INSTITUTION LIBRARIES
3 9088 00188692 8
nhbird QL684.K2H314
Birds of the Kansas City region